HELSINKI SCHOOL OF ECONOMICS
Faculty of International Business

FROM PITFALLS TO POSSIBILITIES: CHALLENGES AND FACILITATORS OF INTER-UNIT KNOWLEDGE TRANSFER IN AN MNC

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SUDENKUOPISTA MAHDOLLISUUKSIIN: HAASTEET JA MAHDOLLISTAJAT YKSIKÖIDEN VÄLISESSÄ TIEDONSIIRROSSA MONIKANSALLISESSA YRITYKSESSÄ

Tutkimuksen tavoitteet

Tutkimuksen tavoitteena oli tutkia monikansallisen yrityksen tiedonsiirtoprosesseja ja niihin liittyviä haasteita. Lisäksi kirjallisuuden pohjalta haluttiin muodostaa tiedonsiirron viitekehys, jonka avulla aihetta voitiin tutkia työn empiirisessä osassa.

Aihetta oli tarkoitus tutkia mahdollisimman kokonaisvaltaisesti, minkä vuoksi työhön sisällytettiin kolme analyysitasoa: yhtiö, tytäryhtiö sekä henkilöiden välinen taso. Lisäksi tutkittiin myös siirrettävän tiedon piirteitä ja niiden merkitystä tiedonsiirtoprosessissa.

Lähdeaineisto

Lähdeaineistona käytettiin kahta haastattelua sekä kahdessa maassa toteutettua kyselytutkimusta. Lisäksi taustatietoja saatiin yrityksen molempien tytäryhtiöiden Internet-sivuilta. Tutkimus oli kvalitatiivisen ja kvantitatiivisen menetelmän yhdistävä tapaustutkimus. Sen tutkimusyksikköinä olivat Janssen-Cilag Oy Suomessa sekä Janssen-Cilag AB Ruotsissa.

Tulokset

Tutkimuksen perusteella voidaan todeta, että monikansallisen yrityksen tiedonsiirto on haastavaa ja se edellyttää johdolta sitoutumista ja suunnitelmallisuutta. Suurimmat haasteet tehokkaan tiedonsiirron aikaansaamisessa ovat tiedonjakokanaviin liittyvät haasteet, ajoitus, tiedon piirteet sekä työntekijöiden asenteet. Siksi johdon pitäisi pyrkiä luomaan organisaatiokulttuuri, johon kuuluu myönteisyys tiedon siirtoon ja uusien asioiden oppimiseen. Lisäksi strategia ja käytännöt tulisi viestiä selkeästi organisaatiossa ja sitouttaa koko henkilöstö noudattamaan niitä.

Avainsanat: Tiedonsiirto, monikansallinen yritys, tytäryhtiö

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ABSTRACT
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Purpose

The study examined the knowledge transfer processes and related challenges in a multinational corporation (MNC). The purpose of the study was to formulate a framework of knowledge transfer challenges and facilitators. The framework was also a basis of the analysis in the empirical part of the study.

The aim of the study was to analyze the knowledge transfer processes from a holistically viewpoint and therefore three levels of analysis – corporate, subsidiary and interpersonal level – were included to the study. In addition, also the impact of knowledge characteristics on the transfer process was investigated.

Methodology

The research method of the study was a mixed case method. The data sources included two interviews and a survey that was conducted in two countries. In addition, also the Internet pages of the case companies provided useful background material. The research units of this study were Janssen-Cilag Oy in Finland and Janssen-Cilag AB in Sweden.

Findings

Based on the study, it can be concluded that inter-unit knowledge transfer in an MNC is challenging and therefore requires planning and commitment from the management. The greatest challenges are related to knowledge transfer channels, timing issues, characteristics of knowledge and the attitudes of the employees. Hence, the management should aim at creating an organizational culture that has a positive attitude towards knowledge transfer and continuous learning. In addition, the strategies and practices should be clearly communicated in the organization and the employees should commit to them.

Key words: Knowledge transfer, multinational corporation, subsidiary

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1. INTRODUCTION

1.1 Background

The role of multinational corporations (MNCs) has changed during the past decades. The view has gradually shifted from viewing such firms as unitary organizations toward seeing them as differentiated inter-organizational networks (Ghoshal & Bartlett 1990, 603). These networks contain a lot of knowledge and by accessing that knowledge, MNCs can both exploit existing repositories of knowledge and combine these knowledge sources to explore new issues (Frost 2001, 120). Recent research goes even so far as to state that the MNCs exist primarily because of their ability to transfer and exploit knowledge more effectively and efficiently in the intra-corporate context than through external market mechanisms (Gupta & Govindarajan 2000, 473; Kogut & Zander 2003, 516). However, in practice these transfers may not take place, or at least not on a regular basis. There is a lot of empirical evidence that knowledge transfers within MNCs are not always successful and smooth (Kostova 1999, 308; Birkinshaw & Arvidsson 2007, 28). Subsequently, the competitive advantages may never eventuate and the maximum efficiency in operations is not achieved.

The MNC context brings certain challenges for efficient knowledge transfer. These include spatial distance, differences in language, outlook, norms and culture and even in time zones, which can result in misinformation and misunderstandings. There can also be different loyalties: for example, subsidiaries may identify more strongly with local communities than with the firm. (Buckley & Carter 2004, 373). However, when these obstacles are surmounted, the efficient knowledge transfer offers several advantages. First, the risk of "reinventing the wheel" is diminished. Also the changes in the competitive environment are easier to recognize. By sharing existing knowledge on competitors and regulatory environments, the organization will become increasingly aware of competitors' moves and possible policy changes that could affect the performance of the company. (von Krogh et al. 2001, 428).

The aim of this study is to find to out, how MNCs can facilitate inter-unit knowledge transfer within them. The focus of the study is on the most challenging issues at corporate, subsidiary and inter-personal level. In addition, challenges caused by knowledge characteristics will be discussed. The empirical part is limited to one case company Janssen-Cilag. Its two subsidiaries, one in Finland and another in Sweden, will be studied focusing on their daily knowledge transfer practices as well as strategic considerations about the issue. A definition of knowledge is given later in this study – at this stage it can be mentioned that the focus is on business and market knowledge and related skills and experiences. At the end of this study, some suggestions for how to prevent the most common pitfalls in the knowledge transfer process will be given.

1.2 Research problem and gap

In terms of historical development of the MNC field, there has been a strong focus on the concept of knowledge in the MNC literature of the last decade (Foss & Pedersen 2004, 348). The theory building about knowledge management and knowledge creation processes has resulted in several studies and theories approaching the topic from different angles.

This theoretical discussion has emphasized (i) the nature of the MNC as a social and communicational context (ii) the role of barriers in the knowledge transfer literature and (iii) the use of HRM practices in knowledge transfer process. Next, those fields will be briefly discussed.

A viewpoint that has gained a lot of attention in the literature is to look at the knowledge transfer and development from the social and communicational perspective (e.g. Barner-Rasmussen & Björkman 2005, Hansen 1999, Kogut & Zander 1993). Zander and Kogut (1993) argue that transfer and development of knowledge is dependent on the structure of an MNC as it can be seen as a social and communicative community. Also the effect of social capital and network ties has been studied (Inkpen & Tsang 2005, Lane & Lubatkin 1998, Nahapiet & Ghoshal 1998).

The second viewpoint examines the role of barriers in knowledge transfer within an MNC. Those barriers for the transfer include e.g. the characteristics of knowledge (Szulanski 1996, 2000) and features of the knowledge senders and recipients (Gupta and Govindarajan 2000, Lane & Lubatkin 1998, Szulanski 1996). Also the effect of context differences on knowledge transfer processes has been studied (Kostova 1999, Kostova & Roth 2002).

The third line of research has discussed the impact of HRM practices on the ability and motivation to share knowledge within an MNC (Minbaeva et al. 2003, Minbaeva 2005).

In the light of theoretical approaches mentioned above, it can be seen that there are many issues impacting on the knowledge transfer process in a multinational corporation. Hence, there is a need for skills to manage those processes. Consequently, the research problem of this study can be stated as follows:

How to facilitate inter-unit knowledge transfer in a multinational corporation?

The research problem will be answered by analyzing the most problematic knowledge transfer issues and the organizational mechanisms that can be used to facilitate the inter-unit knowledge transfer in an MNC. The organizational mechanisms are defined as the instruments of sourcing, building, deployment and transfer of knowledge resources that can enhance knowledge flows in an MNC (Foss & Pedersen 2004, 348). Examples of these are training and Intranet. The use of organizational mechanisms in the knowledge transfers in an MNC is not a well-researched area in the MNC literature. As Foss & Pedersen (2004) put it:

> *"Yet, with certain notable exceptions (e.g. Gupta & Govindarajan 2000, Björkman et al. 2004), few efforts have been made to examine the influence of organizational mechanisms as instruments of sourcing, building, deployment and transfer of knowledge resources".* (Ibid, 342).

This research gap means that relatively little attention has been devoted to how the delegation of authority and decision rights, the provision of incentives, the monitoring of managers and employees etc., may impact on MNC processes (ibid, 341). Because understanding of what factors might facilitate the process of knowledge transfer is also of strategic importance to MNCs (Kostova 1999, 321), those organizational mechanisms are referred to as *facilitators* in this study.

1.3 Research objectives and questions

After considering the research problem and the research gap, the objectives of this study can be identified. The first objective is to provide a description of the knowledge transfer processes and the related challenges at different knowledge transfer levels in an MNC. The second objective of this study is to provide a framework illustrating these components and to analyze how they are applied in the case company Janssen-Cilag.

Based on the research objectives, three research questions are set:

1. *What are the key issues in the inter-unit knowledge transfer process of an MNC?*
2. *What are the main facilitators of knowledge transfer in an MNC?*
3. *What knowledge transfer practices are used in Janssen-Cilag Nordic?*

The study is structured in a way that the first and the second research questions will be answered in the literature review. The third question will be dealt in the empirical part of the study.

1.4 Definitions

The key concepts of the study will be discussed in more detail later in the study. Some short definitions are given here to help to clarify the study area.

Knowledge

"Knowledge is a fluid mix of framed experiences, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the mind of the knower" (Davenport & Prusak 1998, 5)

Knowledge transfer

"Knowledge transfer in organizations is the process through which one unit (e.g. group, department or division) is affected by the experience of another." (Argote & Ingram 2000, 151).

"... (knowledge transfer) should lead to changes in behavior, changes in practices and policies and the development of new ideas, processes, practices and policies" (Davenport & Prusak 1998, 101).

"The term knowledge transfer is used for knowledge exchange on the organizational level between groups and units." (Mäkelä 2006, 20).

Knowledge sharing

"The term knowledge sharing refers to knowledge exchange on the interpersonal level." (Mäkelä 2006, 20)

In this study, both knowledge transfer and knowledge sharing will be covered, because the discussion deals with knowledge exchange at different levels in an MNC. In this study, the term *knowledge transfer* covers both of these levels.

1.5 Limitations

The study has certain limitations. Firstly, the study is limited to the managerial perspective of knowledge transfer issues in an MNC. Therefore, information technology systems will have a narrower role in the study. Secondly, the empirical part of the study is limited to only one case company.

1.6 Structure of the research report

This study is divided into five chapters. After the introduction, the second chapter takes a review to the literature and presents the most important previous studies on which the framework of the present study is built on. In the third chapter, the methodology of the study and the reliability and validity of the data are discussed. The fourth chapter discusses the knowledge transfer processes and challenging issues at the case company Janssen-Cilag. The final chapter presents the main findings of the study, the revised framework, managerial implications and suggestions for future research.

2 LITERATURE REVIEW

2.1 Concept of knowledge

Knowledge can be defined in different ways. It can be understood as a hierarchy or it can be classified into categories or types according to its characteristics. These definitions will be discussed next.

According to Skyrme (1999), knowledge is a hierarchy that consists of four steps. The lowest step is *data* that consists of mere facts and figures. When they are given a certain context, data becomes *information*. Both data and information are easy to codify and transfer. On the third level is *knowledge*. It is information that has been given meaning and therefore it is contextual and its transfer needs learning. At the top of the knowledge hierarchy is *intelligence* or wisdom, which is knowledge with insight. Intelligence is strongly embedded in the particular individual and thus transferring intelligence is either very difficult or impossible. (Skyrme 1999, 47). The knowledge hierarchy is presented in the figure below.

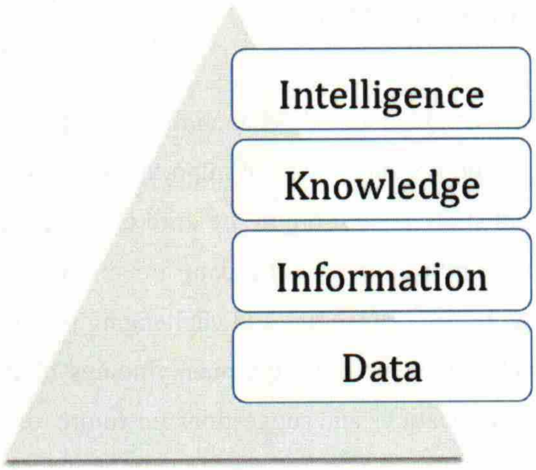

Figure 1: Knowledge hierarchy (Skyrme 1999, 47)

The above-presented hierarchy emphasized that in order for facts and figures to become knowledge, they need to be processed and utilized by the receiver. The skill to utilize information is illustrated by defining knowledge as know-what and know-how (Nahapiet & Ghoshal 1998, 246). These knowledge types are mentioned also by Antal (2000), who calls them declarative (knowing what) and procedural knowledge (knowing how). In addition to these types, she mentions also conditional (knowing when) and axiomatic knowledge (knowing why). She explains that knowledge becomes significant when there is a synthesis of these knowledge types in an organization; e.g. knowing "what" can be applied effectively only when one also knows "how" and "when" to use it. (Antal 2000, 39).

Literature on knowledge indicates that "knowing what" can actually be quite challenging. This is because knowledge may be highly personal and deeply rooted in action and context and is therefore hard to formalize and communicate. This kind of knowledge is referred to as *tacit knowledge* in the literature (Nonaka 1994, 16). Tacit knowledge is also subjective whereas its opposite form, explicit knowledge, is objective (Nonaka & Peltokorpi 2006, 76). Explicit knowledge exists in transmittable form and is captured in, for example, databases, archives and libraries (Nonaka 1994, 17).

The distinction between tacit and explicit knowledge is based on Polanyi's work (1962) and it is perhaps the most cited classification of knowledge types (Nahapiet & Ghoshal 1998, 246). Also Skyrme (1999) has used this distinction in his knowledge hierarchy model. According to him, data and information are explicit knowledge and knowledge and intelligence are tacit knowledge (ibid, 47).

Despite its popularity, there are also disagreements about the distinction between tacit and explicit knowledge. Tsoukas and Vladimirou (2001) claim that tacit knowledge and explicit knowledge are mutually constituted and they should not be viewed as two separate types of knowledge (ibid, 975). Nonaka (1994) does not take that radical view on the distinction, but propose that explicit and tacit knowledge are not exclusive but complementary and thus knowledge can be converted from one form to the other. (ibid, 18-21).

It was discussed in this section that there are many different perspectives on knowledge. It would not seem reasonable to apply each perspective in an effort to find answers to this thesis' research questions. Thus, the focus of this study is not on explicit, tacit, conditional or other definition of knowledge as such, but rather on the sharing of all kinds of knowledge between different subsidiaries within an MNC regardless of the explicitness or tacitness. Still, the emphasis of the study will on second and third steps of Skyrme's pyramid: information and knowledge. These choices are based on the assumption that facts and figures are given a certain context within companies and hence, data level becomes information level in almost every occasion in the company. Neither will the intelligence level be covered in this study, as intelligence is strongly embedded in the particular individual and it is difficult or even impossible to transfer (Skyrme 1999, 47). Thus, it does not seem reasonable to put too much effort on recognizing that kind of knowledge in the empirical part of the study as the focus of the study is to form a more general framework of knowledge transfer issues in an MNC. In the empirical part of the study, the survey and the interviews will be conducted in a way that knowledge is not defined beforehand but the results are expected to reveal how the concept of knowledge is understood in the case company Janssen-Cilag.

2.2 Concept of knowledge transfer

Despite that the concept of knowledge transfer contains a word *transfer*, knowledge transfer it is not a mere act of transmission and reception (Szulanski 1996, 28). Next, the concept of knowledge transfer and its implications on transferring explicit and tacit knowledge is discussed.

Knowledge transfer is a process. According to Szulanski (2000), it consists of four stages that include initiation, implementation, ramp-up i.e. the stage where the recipient starts to use new knowledge, and an integration stage. As the process stages imply, the knowledge transfer process is not finished until the recipient has received and used the knowledge and has also integrated it into the organization. (ibid, 13).

Because that knowledge might not be useful in a new place as such, some modifications to it may need to be made. Thus, transfer of knowledge does not imply a "full" replication of knowledge in a new location and therefore it can be stated that what is transferred is not the underlying knowledge but rather *applications* of this knowledge in the forms of solutions to specific problems (Foss & Pedersen 2000, 6). Based on the discussion above, a following definition is fitting:

> *"Knowledge transfer is a process in which an organization recreates and maintains a complex, causally ambiguous set of routines in a new setting."* (Szulanski 2000, 10).

As was discussed in the previous section, the concept of knowledge can be understood very widely in organizations and it can also contain elements of know-how and organizational practices. Therefore also studies on knowledge transfer process do not always refer to transfer of knowledge, but can also define it as *transfer of practices* (e.g. Jensen & Szulanski 2004, Szulanski 2000, Kostova 1999). Both of those concepts will be used in this study.

The impact of tacit knowledge on transfer process

Tacit knowledge may be more difficult to transfer than knowledge that is in explicit form because it is largely accumulated through personal experience and is not easy to separate from the individuals who possess it (Lord & Ranft 2000, 577). As a solution for problems in transferring tacit knowledge it has been suggested that companies should foster personal relationships between the transfer parties (Argote et al. 2003, 574). The skills to transfer tacit knowledge are very valuable for the companies because tacit knowledge is a key factor in the creation of new knowledge. (Nonaka 1994, 16). In addition, a lot of knowledge that companies have is in tacit form (Gupta & Govindarajan 2000, 474). Therefore, it can be concluded that tacit knowledge includes a lot of potential benefits for companies if they only learn to utilize it.

Based on the discussion in this section, it can be seen that internal transfers of knowledge are not always easy to achieve (Szulanski 2000, 10). In MNCs they are more challenging than in the case of domestic business units, due to the constraints imposed by geographical distance, cultural diversity, linguistic differences and conflicting demands of various host governments (Gupta & Govindarajan 1991, 771). Despite the challenges related to knowledge transfer, the reuse of knowledge in multiple locations can provide an MNC with a competitive advantage (Jensen & Szulanski 2004, 508).

Next, the discussion moves to different knowledge transfer levels. The aim of that analysis is to increase understanding of how the knowledge processes at these levels can be facilitated.

2.3 Knowledge transfer at different levels in an MNC

Multinational corporations have a lot of knowledge at different organizational levels. Next, those levels and the focus area of the study will be shortly presented. After that, the levels (corporate, subsidiary and interpersonal level) will be examined one by one. The problematic issues and possible facilitators at these levels will be examined.

Focus areas

There are several levels where knowledge may exist in a multinational corporation. Those include the individual, the group, the organization and the inter-organizational domain. The first three levels – individual, group and organization – refer to *internal* knowledge flows within an MNC. The fourth level, inter-organizational domain refers to *external* knowledge flows, i.e. knowledge flows between the MNC and other organizations, such as the company's customers, suppliers, competitors etc. (Hedlund 1994, 75).

Hedlund's model (1994) will be used as a basis for presenting the focus areas of this study. For this purpose, some of his concepts will be renamed to clarify the focus of this study and to meet the terminology used in this study. Individual level is referred to as interpersonal level, the group level is referred to as subsidiary level and organization level refers to corporation level. Those renamed concepts will be used also in the table below.

Interpersonal level	**Subsidiary**	**Corporation**	**Inter-organizational domain**

Table 1: Multiple dimensions of knowledge flows within the MNC (Adapted from Hedlund 1994, 75)

The focus of this study is on *internal* knowledge flows in an MNC and for that purpose the interpersonal, subsidiary and corporation levels will be discussed in the study. The gray color in the figure above illustrates these focus areas.

In addition to the various levels of knowledge there are also several directions of knowledge flows in an MNC. Those include transfers from parent companies to foreign subsidiaries, from foreign subsidiaries to parent companies and from one subsidiary to another. (Kostova 1999, 309). There are also knowledge flows from the local environment to the subsidiary and flows from the subsidiary to the local environment (Gupta & Govindarajan 1991, 775). In this study, the focus is on knowledge flows between peer subsidiaries.

An explanation of why all three levels of analysis will be examined when investigating knowledge flows between peer subsidiaries stems from the literature. There it is stated:

> "*... a multilevel approach, such as this is appropriate, if not necessary, for studying such complex phenomena as the cross-national transfer of practices.*" (Kostova 1999, 309)

> "*... the issue of the organization of knowledge processes is an overarching one in MNC organization*" and "*... it is one that needs to be addressed by different approaches because of the inherent multidimensionality and complexity of the subject matter*" (Foss & Pedersen 2004, 348).

Next the different knowledge transfer levels will be discussed, starting from the corporate level approach.

2.3.1 Corporate approach to knowledge transfer

A) Knowledge transfer strategy

Knowledge transfer within an MNC is far from easy. As was concluded by Porter (1985, 352):

> *"the mere hope that one business unit might learn something useful from another is frequently a hope not realized".*

There are many factors that may disturb the transfer process but perhaps the greatest reason behind those difficulties is that companies simply do not know how to transfer knowledge efficiently (Szulanski 1996, 38). Even if the company would have been considering knowledge transfer issues, managers need to work very hard to make it happen (Conn & Yip 1997, 31).

Therefore, knowledge transfer should be perceived as a strategic priority in an MNC and management should understand that processes for knowledge transfer really matter (Birkinshaw & Arvidsson 2007, 32-33). An MNC should not let knowledge evolve at the periphery of management's attention but rather to take a proactive approach to the company's knowledge and expertise (von Krogh et al. 2001, 435). The managers should orchestrate the knowledge flows so that knowledge is transferred to those MNC units where it can provide new value and thus also competitive advantage can be achieved (Foss & Pedersen 2000, 7). They should also understand what factors may facilitate or hinder the process of transfer (Kostova 1999, 321). Knowledge transfer should be understood holistically because dealing with one determinant is not likely to enhance knowledge transfer unless other determinants are also considered (Minbaeva 2007, 590).

However, the top management of an MNC needs not to be alone responsible for strategic planning but the responsibility can also be given to lower managerial levels. Literature has also found a positive effect in such cases where the corporate-level country headquarters were given responsibility to formulate their own divisional strategies for local knowledge transfer with the assistance of corporate executives (Lord & Ranf 2000, 585). Responsibility issues will be dealt in the next section.

B) Responsibility issues

The previous chapter emphasized the importance of knowledge transfer strategy and managerial commitment to it in an MNC. Top management has an important role in knowledge transfer process because they are acting as initiators who can set goals, reorder structures and design incentives for knowledge transfer efforts (Buckley & Carter 2004, 376). After the knowledge transfer strategy is formulated, it should be communicated to the employees (Szulanski 1996, 38). This is important, because the employees should also understand and be committed to knowledge transfer for the strategy to succeed. The responsibilities of employees will be examined next.

Both the person who possesses knowledge and the person who receives knowledge have important roles in knowledge transfer. This is because a pure transmission of knowledge from the source to the recipient has no value if the recipient does not use the knowledge. The actual value of knowledge is thus not the underlying or original knowledge but the extent to which the receiver acquires useful knowledge and utilizes this knowledge in operations (Minbaeva et al. 2003, 587). A person who has the knowledge is responsible for taking an initiative when he recognizes that the circumstances demand knowledge transfer (Buckley & Carter 2004, 376).

Sharing responsibilities within an MNC seems to be an issue that should be approached with care. Different departments, functions and business units should have the possibility to leverage knowledge through transfer process, but at the same time knowledge transfer should be used selectively, as not everybody in the company need to be informed of everything at all times (von Krogh 2001, 425). People should also know who in the company knows what, so that they know where to search for relevant knowledge and information (Argote et al. 2003, 579). As a facilitator for clearer responsibility sharing in MNCs it has been suggested that business should be segmented in a way that can ease daily knowledge sharing (Birkinshaw & Arvidsson 2007, 33).

C) Corporate resource decisions and allocations

Once the management and employees are committed to knowledge transfer in an MNC, the decisions about the use of resources and the choice of knowledge transfer channels can be made. There are a variety of possible transfer channels. Next, the formal and informal knowledge transfer channels will be discussed.

i) Formal knowledge transfer channels

Organizations can advice their employees to exchange knowledge through many formal channels. Examples of these channels include e-mail messages and printed or electronic documents (Lord & Ranft 2000, 574). Other knowledge transfer routes include documentations, handbooks and database software (von Korgh et al. 2001, 428-436). A commonly used route is also company Intranet (Mäkelä 2006, 88).

Electronic corporate information systems enable the employees to have all the information that they need instantly because new information is easy to codify into a system (Tsoukas & Vladimirou 2001, 990). Thus, these channels suit well for transferring knowledge that is in easily transferrable and understandable form. Their disadvantage is that they do not permit two-directional interpersonal interaction that could allow the sharing of personal knowing or thinking-in-interaction and then could lead to generation of new knowing and knowledge (Mäkelä 2006, 88). Therefore, electronic channels cannot be a substitute for socialization practices and other informal knowledge transfer channels (Tsoukas & Vladimirou 2001, 991). The informal channels will be examined next.

ii) Informal knowledge transfer channels

Informal knowledge transfer channels provide the employees with the opportunities for social interaction. Social interaction is important in companies because interpersonal interaction is the primary means through which inter-unit knowledge transfer takes place (Foss & Pedersen 2004, 341). By devoting resources to informal knowledge transfer channels, the corporate level can affect the density of communication between its employees and thus facilitate the knowledge transfer processes.

According to Björkman et al. (2004), corporations can increase the likelihood for knowledge sharing by organizing international training programs, by establishing international task forces and committees and by encouraging visits across MNC units.

(ibid, 451). Other ways include cross-cultural teams, work groups with participants from several subsidiaries, seminars and conferences and project teams (Andersson 2003, 427).
The importance of cross-national teams is emphasized in many studies. Subramaniam & Venkatraman (2001) found that the richness of information-processing mechanisms, such as cross-national teams, teams with members having prior overseas experience and frequency of communication between team members and overseas managers, had a significant positive influence on transfer and deployment of tacit overseas knowledge. (ibid, 364-372). Lord & Ranft (2000, 579) discuss the importance of "brainstorming" teams. Also investments in management training and development programs for participants from a variety of MNC units seem to pay off in terms of enhanced communication (Barner-Rasmussen & Björkman 2005, 43). The literature also mentions learning by observation as an example of a knowledge transfer mechanism. Instead of accumulating knowledge directly, an individual accumulates knowledge by watching another person perform a task (Argote et al. 2003, 575-576).

Informal knowledge transfer channels can provide great benefits for an MNC. For example, the employees may hear about opportunities for knowledge utilization even without having inquired (Hansen 1999, 84). A danger in the use of these channels is that companies are putting too much effort in cultivating the close relationships with other subsidiaries. It is costly to maintain direct relations to other subunits and instead of cultivating those, it could sometimes be better to develop new relations with other units in a company (ibid, 85).

Based on this section, it can be concluded that both formal and informal knowledge transfer channels are needed in an MNC. Their utilization can provide great benefits but concentration on fostering only certain channels can also be risky. The importance of evaluating the efficiency of these channels will be discussed next.

D) Performance evaluation and continuous development of knowledge transfer practices

Once the knowledge transfer actions and channels have been chosen and implemented in an MNC, there comes a moment when the success of the procedures should be evaluated. To construct and implement a system that allows headquarters management to measure subsidiary knowledge transfer is likely to be a significant challenge. (Björkman et al. 2004, 452).

The empirical evidence proves that is difficult for headquarter managers to identify their leading edge subsidiaries in knowledge transfer. To overcome this problem, companies would need to develop performance indicators that are comparable across countries. This would help to make the decisions about which are the subsidiaries that the other subsidiaries should learn from and it would also stimulate the whole group of subsidiaries for improvement. The suggested indicators of knowledge transfer performance include measuring the level of knowledge flows. This means counting the frequency with which information about new products, processes or practices is shared across the subsidiaries in the corporate network. Another indicator is to measure the level of agreement between the subsidiary managers' self-ratings of their subsidiary's capabilities and the ratings of their bosses at headquarters. The third indicator is to find out the extent to which subsidiary managers are able to identify the peer subsidiaries with the strongest capabilities in specific areas. (Birkinshaw & Arvidsson 2007, 30-32).

At the evaluation phase it is also important to learn from both successes and failures. For example, knowledge debriefs can help to recognize the valuable learning from the project (von Krogh et al. 2001, 428). Another positive feature in trial-and-error learning is that interruptions in experience provide good opportunities for knowledge transfer (Argote et al. 2003, 575).

Evaluation of the success of the measures can help the company to develop their processes even further. This is a useful skill as the business and competitive environments and even cultures are evolving all the time (Lucas 2006, 272). It has also been stated that the whole development of effective knowledge practices is likely to happen through this evolution and gradual discovery (Buckley & Carter 2004, 381).

E) Benefits and costs of knowledge transfer

Efficient knowledge transfer is speedy, helps the company to achieve synergies and therefore leads to improved performance (Lucas 2006, 271-272). In an ideal knowledge transfer process all members of the firm have the best available estimate of decision-relevant information, all members of the firm share the firm's objective function and all complementary actions are chosen jointly. (Buckley & Carter 2004, 378-379).

On the other hand, an inefficient knowledge transfer process can cause many losses for the company. First of all, the company can suffer from knowledge-based losses, when the decisions are not based on the best available knowledge. Secondly, it can suffer from decision-objective losses, when the members pursue activities that further their own objectives, subsidiary objectives or group objectives rather than the firm's objectives. Thirdly, the coordination losses may occur when complementary actions are not chosen jointly. (Buckley & Carter 2004, 379).

It should be understood that even efficient knowledge transfer is not costless. Teece (1981) has estimated that transfer costs for the intra-MNC technology transfer cases he examined ranged from 2,24 percent to 59 percent with a mean of 19,16 percent (Teece 1981 in Foss & Pedersen 2000, 4). According to Kogut and Zander (1993) knowledge transfer costs are derived from the efforts to codify and teach complex knowledge to the recipient (ibid, 630).

In this section, the corporate approach to knowledge transfer in an MNC was discussed. As a summary it can be concluded that the corporate level is responsible for the overall knowledge transfer strategy in an MNC, for providing a variety of formal and informal knowledge transfer channels and also for informing the employees of their roles in knowledge transfer. These decisions need to be based on the evaluation of the potential benefits and costs, because by knowing them it is easier to develop the practices continuously and then to better meet the strategic objectives of knowledge transfer. Next, the characteristics of subsidiaries and their impact on knowledge transfer process will be discussed.

2.3.2 Subsidiary characteristics

A) Institutional duality and status of a subsidiary

Despite the decisions and practices formulized at the headquarters and advices to apply them in all subsidiaries, the implementation of practices is not always as smooth as planned. An important role in their implementation is that of the subsidiary managers. Their attitudes towards new knowledge or practices have a large impact on whether they will or will not be implemented.

On many occasions, foreign subsidiary managers are frustrated with headquarters' requests for implementation of "yet another new program" (Kostova 1999, 308). Subsidiary managers may implement practices only partially and adopt only those components that they feel their employees would prefer and ignoring the rest. Managers may also decide not to implement a particular practice while they report otherwise to headquarters. In some extreme cases, local managers feel so alienated from the parent company that they do not believe in the parent's motives and thus do not even consider complying with implementation requests. (ibid).

Subsidiary managers may be in the situation where they are in pressure to maintain legitimacy within both the host country and in an MNC. The tension lies between the need for global integration and local adaptation. That kind of controversy is called *institutional duality*. A concrete example of institutional duality is situation where the practice may be viewed by a subsidiary as inappropriate or inefficient in a host country and the manager is not willing to implement it. (Kostova & Roth 2002, 215-216).

Unwillingness to implement new practices may also be also caused by other tension than institutional duality. Employees may have an overall negative attitude towards practices that are invented elsewhere than in their own unit. This is called "NIH syndrome" (=Not Invented Here syndrome). (Szulanski 1996, 37).

Another issue that has an effect on the willingness to absorb the new practices that are invented outside the organization is the status of a subsidiary. High status of a subsidiary has a positive effect on the knowledge flows and low status has a controversial effect on them (Argote et al. 2003, 573). According to Gupta and Govindarajan (2000) knowledge of subsidiaries located in economically more advanced countries may be more likely valued by other subsidiaries than the knowledge of subsidiaries that are located in the country whose economic advancement is lower (ibid, 480).

To diminish the tension between previous and new practices and attitudes towards them, some solutions are presented in the literature. They aim for motivating the managers to cooperate with each other and therefore an MNC should build strong personal networks across the body of subsidiary managers. The standard approaches to fostering knowledge sharing include the regular meetings of subsidiary managers, transferring executives between countries and creating an effective knowledge management infrastructure through company Intranet. (Birkinshaw & Arvidsson 2007, 32).

B) Coopetition between subsidiaries

Many units in an MNC are forced to both compete and cooperate with each other. This paradox of simultaneous cooperative and competitive situation is called *"coopetition"*. It means that organizational units like to learn from each other and benefit from new knowledge developed by other units, but at the same time, these units may serve similar markets and their rewards and status may depend on how they perform relative to other units within the same organization. This means that they have to compete with each other for internal resources and external market share. (Tsai 2002, 179). This can lead to a situation where the subsidiaries may perceive it to be against their own interest to actively engage in knowledge transfers to other MNC units, even though transferring knowledge would enhance corporate performance (Björkman et al. 2004, 445).

As a solution to this problem, it has been suggested that an MNC should tailor the subsidiary performance evaluation criteria and specify knowledge transfer as a subsidiary evaluation criterion. When knowledge transfer is an evaluation criterion, it is also considered as a one of the key objectives of a subsidiary and the subsidiary managers want to put effort on it. Evaluation of the results and thus the potential rewards, for example in the form of improved career prospects, motivate the managers to stress the importance of knowledge transfer in their subsidiaries. (Björkman et al. 2004, 451-453). Also shared values of the nature of the MNCs' strategy will facilitate knowledge transfer (Andersson 2003, 439).

As a conclusion from the findings of the importance of subsidiary characteristics on knowledge transfer in an MNC several issues can be mentioned. The most important knowledge transfer barrier at this knowledge transfer level seems to be the subsidiary's attitude towards other subsidiaries. Negative attitude, NIH-syndrome and low status in the eye of other subsidiaries are barriers that should be recognized and overcome. The nature of mutual relationships between the employees is in a key role in this issue. Next, those issues will be discussed.

2.3.3 Inter-personal level

A) Concept of social capital

In the introduction of this study, a view of seeing MNC rather as a network than a hierarchy was presented. Some studies see that these networks consist of personal relationships. The idea presented by Kogut and Zander (1996) illustrates this view by concluding that a firm should be understood as a social community that is specializing in the speed and efficiency in the creation and transfer of knowledge (ibid, 503). In this section, the importance of personal relationships network and a concept of social capital will be discussed.

Social capital is defined as:

> "*The sum of the actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network.*" (Nahapiet & Ghoshal 1998, 243).

Social capital can be divided into three clusters: the structural, the relational and the cognitive dimensions of social capital. These clusters are highly interrelated with each other. (Nahapiet & Ghoshal 1998, 243). Structural dimension refers to the network of relationships as a whole and consists of network ties, network configuration and appropriable organization. Cognitive dimension refers to the resources that consist of shared codes, language, narratives and interpretations. Relational dimension refers to assets that are created and leveraged through relationships, such as trust, norms, obligations and identification. (ibid, 244).

For effective knowledge transfer to occur, firms need to manage and build social capital proactively (Inkpen & Tsang 2005, 160). This means that proper channels and actions need to be planned and provided in an MNC. In their study on intra-corporate networks and knowledge transfer between network members, Inkpen & Tsang (2005) developed a model where they link social capital dimensions to the conditions that facilitate knowledge transfer (ibid, 146). The model is presented below.

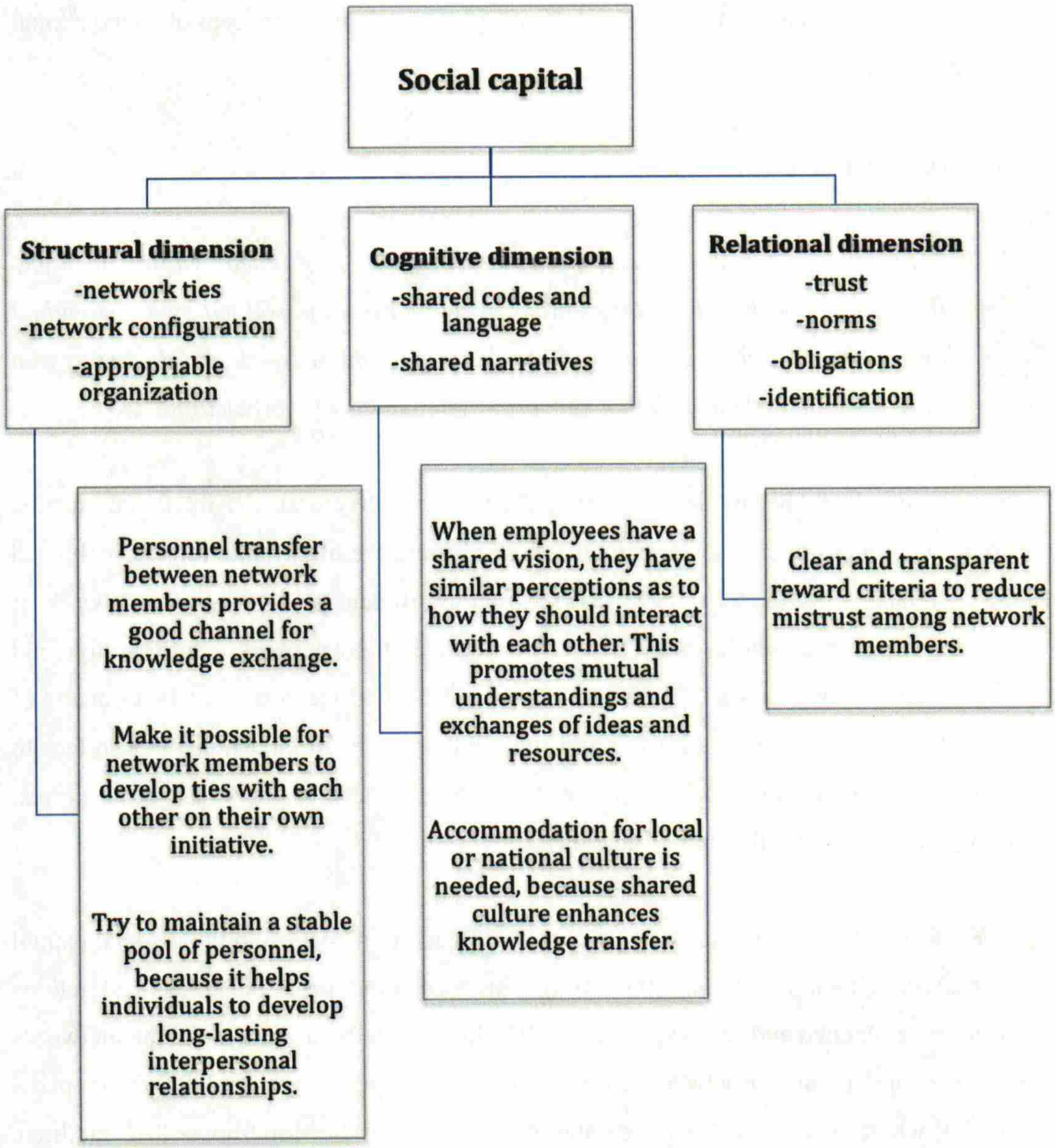

Figure 2: Conditions facilitating knowledge transfer in intra-corporate network (Adapted from Inkpen & Tsang 2005, 154-160)

In the structural dimension of social capital, the MNC should provide ways for the employees to develop ties with their colleagues. Long-lasting relationships are important, because individuals who leave a network can take with them knowledge that may be crucial for organizational success. Therefore, the MNC should try to maintain a stable pool of personnel and also allow personnel transfers between the network units (Inkpen & Tsang 2005, 155-156).

On the cognitive dimension it is important that the network members share the same vision and understand each other's cultures. Cultural conflict may otherwise hinder knowledge transfer. A shared vision is a bonding mechanism that helps the employees integrate knowledge.

On the relational dimension the most important issue is that employees can trust each other and they have good relationships with each other. By establishing clear and transparent reward criteria the headquarters can prevent mistrust or suspicion of favoritism between different subsidiaries. (ibid, 157-158)

The aim of the model is to provide guidance for firms that want to exploit the opportunities provided by a network (Inkpen & Tsang 2005, 160). Acccording to Nahapiet & Ghoshal (1998) the opportunities can be very beneficial because the companies that can develop the social capital in their organization seem to be more successful in knowledge transfer than companies that do not have this ability (Nahapiet & Ghoshal 1998, 260).

For the purposes of this study, the model gives an interesting starting point for understanding the importance of interpersonal relationships and their impact on knowledge transfer efficiency in an MNC. It links social capital to the organizational culture of an MNC by emphasizing the importance of a common vision, trust and understanding of the culture of other subsidiaries. Next, the issues of trust and mutual relationships will be examined.

B) Mutual relationships and trust between the employees

Mutual relationships between the employees can be very valuable for the knowledge transfer between different units. There is evidence that strong inter-unit ties facilitate the sharing of tacit and complex knowledge and weak ties help in the search of new knowledge. Weak ties have also other advantages. They are less costly to maintain than strong ties and suit well for instrumental tasks. (Hansen 1999, 105-107).

Trust may reduce the costs of communication, negotiation and exchange associated with a transfer between the parent and recipient (Kostova 1999, 319). Therefore, organizations must create connections where cross-border knowledge sharing matters most. (Mäkelä 2006, 88).

C) Language issues

Knowledge transfer requires the use of language and communication to enable articulation in order to promote assimilation of new knowledge (Buckley et al. 2005, 48). The role of language in knowledge transfer process is discussed next.

Limited language skills can set the employees into unequal roles in a company. Employees with limited language skills may encounter problems with written communication sent out in the official corporate language and they can also have difficulties in building horizontal relationships with other units and headquarters. In contrast, those with superior language capabilities are able to build broad contact networks within an MNC. Language is often used as an informal source of expert power in multinationals. Examples of the unequal roles of the employees are so called "shadow" structures that lie behind the formal organization chart and are based on language clusters and individuals who are language nodes and mediators. Those belonging to these informal language-based groups can be able to restrict information sharing within the organization. (Marschan-Piekkari et al. 1991, 421-433).

The consequences of language barriers have also been explained with a cycle model. In their model, Harzing & Feely (2008) explain how language barriers can affect the communications in an organization and therefore cause problems in knowledge transfer processes (ibid, 56). Their model is illustrated below.

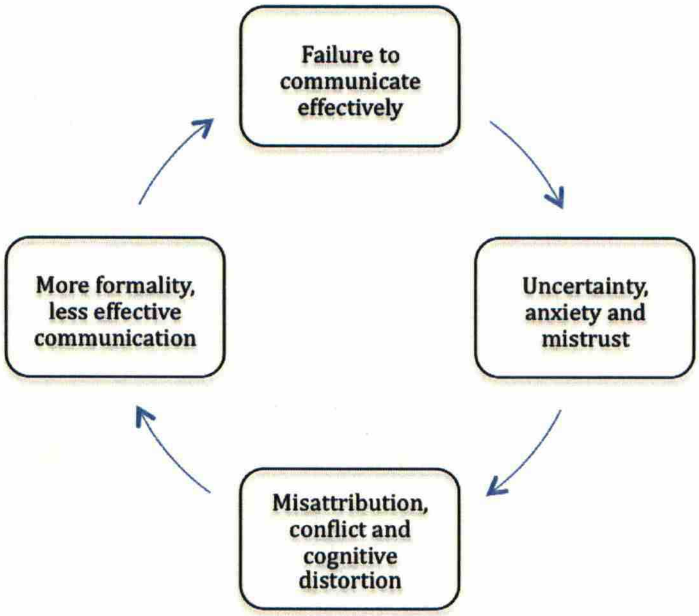

Figure 3: The communications cycle (Harzing & Feely 2008, 56)

The cycle starts when there is a failure to communicate effectively in an organization. When communication fails, the flow of information is impeded and therefore understanding is difficult to achieve. This can lead to uncertainty, anxiety and mistrust. Then attitudes are likely to harden and inter-group relationships suffer as group identities polarize and motives and actions are incorrectly and negatively attributed. The combined impact of the anxiety, the polarization, the suspicion and the negative stereotypes is to increase the sense of separation between the parent company and its subsidiary. Communications between the two becomes more strained, guarded, formal and thus also less effective as time goes on. (Harzing & Feely 2008, 56).

As a solution to language barriers in MNCs some suggestions have been proposed. MNCs are advised to recruit individuals with language skills in order to facilitate their interaction with both headquarters managers and their colleagues in peer subsidiaries. Also language training may improve a subsidiary manager's ability to communicate across units. (Barner-Rasmussen & Björkman 2005, 43). As other solutions it has been suggested that national managers may be replaced with expatriates or other personnel skilled in the official language of the MNC (Harzing & Feely 2008, 57). Similarly, expatriates, circulation of staff internationally and cross-cultural teams are seen to provide possibilities to enhance knowledge transfer in MNCs (Buckley et al. 2005, 62). These all illustrate the important advice to include language into strategic plans of corporations (Marschan-Piekkari et al. 1999, 437).

D) Absorptive capacity

Many researchers have discussed absorptive capacity and its role in knowledge transfer. It has even been proposed that the absorptive capacity of the receiving unit is the most significant determinant of internal knowledge transfer in MNCs (Gupta & Govindarajan 2000, 490).

Absorptive capacity has been defined as

> "*The ability to recognize the value of new external information, assimilate it, and apply it to commercial ends*" (Cohen & Levinthal 1990, 128).

It can also be defined as consisting of four dimensions: acquisition, assimilation, transformation and exploitation of knowledge. Especially the last two dimensions, capability to transform and exploit the knowledge are important for organizations, because they can lead to profit generation. (Zahra & George 2002, 191).

Subsidiaries differ in their absorptive capacity and this affects the level of internal knowledge transfer from other MNC units (Minbaeva et al. 2003, 586). When the knowledge or practices are adapted in the recipient organization, the positive issue is that motivation and acceptance of the employee to utilize that knowledge increases (Jensen & Szulanski 2004, 510).

Limited investments in training and development may result in low levels of employee knowledge and skills and thereby inhibit learning (Jensen & Szulanski 2004, 587). At the group level absorptive capacity can be improved by using communities of practice. Those are groups with similar motivations and goals and by forming those groups the barriers to knowledge absorption can be reduced. (Buckley & Carter 2004, 377). Other methods to increase absorptive capacity include organizational structures that enhance and support organizational learning (Minbaeva et al. 2003, 587). Also similarity of tasks and experience ease the knowledge transfer (Argote et al. 2003, 575).

It could be concluded that investments in training can pay themselves back as an increased absorptive capacity. This finding is based the argument that absorptive capacity builds on existing knowledge and a firm's absorptive capacity tends to develop cumulatively (Cohen & Levinthal 1990, 150).

In addition to absorptive capacity, also motivation to apply new knowledge or practices is important for the success of knowledge transfer. The role of motivation is discussed next.

E) Motivation

Without any incentives to help their colleagues in other divisions, even a relatively simple knowledge transfer process such as sharing accumulated market research may not occur, especially given a myriad of more urgent and competing priorities. (Lord & Ranft 2000, 579). A lack of incentives is especially problematic when considering the internal transfer of more *tacit forms* of local market knowledge. The effective transfer of such knowledge might require involved personal interactions such as extensive phone conversations, face-to-face meetings, on-site visits, mentorship activities, or personnel reassignment across divisions, and without motivated employees this may not happen. (Lord & Ranft 2000, 579). To increase motivation of the employees, use of compensation practices has been discussed in the literature (Minbaeva 2003, 587). The incentive structure must ensure that group goals are consistent with the firm's goals and that individual goals are consistent with group goals. (Buckley & Carter 2004, 380).

In this section, the challenges and facilitators of knowledge transfer in the interpersonal level was examined. As a conclusion it can be stated that understanding the importance of social capital of an MNC is of key role for the success of knowledge transfer practices. Therefore actions to increase the ability, opportunities and motivation of the employees should be provided by a company (Argote et al. 2003, 575-576).

2.4 Processual approaches to knowledge transfer in an MNC

In the previous section, the focus of analysis was at different knowledge transfer levels: corporate, subsidiary and interpersonal levels. The problematic issues and possible facilitators of knowledge transfer at these levels were discussed. In order to acquire a more holistic understanding of inter-unit knowledge transfer in an MNC the focus of the analysis will move now from single level issues to more processual approaches. Five much referred articles in that field will be presented and analyzed together in order to find their common features and differences.

The following five theories were chosen for the analysis for different reasons. Firstly, three of theories - Gupta & Govindarajan (2000), Kostova (1999) and Szulanski (2000) - are very classical and much referred theories in the knowledge transfer literature. Theories by Gupta & Govindarajan (2000) and Szulanski (2000) have also the advantage that they are based on large empirical samples that is often lacking in knowledge transfer theories (Gupta & Govindarajan 2000, 474). Large empirical evidence is also an advantage in Minbaeva's study (2005) on the effect of HRM-practices on knowledge transfer. Her study is a rather new holistic theory in the knowledge transfer literature and it is also a much-referred article. The fifth article by

Lucas (2006) was chosen for the analysis, because it is a very detailed theory on the effect of culture on knowledge transfer issues. Despite its importance, the effect of culture in knowledge transfer has not previously been analysed very thoroughly in the literature.

For the purposes of this study, five theories were chosen for the analysis to illustrate the different viewpoints on knowledge transfer process. The process view on knowledge transfer is important because the studies discussed earlier only cover single issues and do not link the facilitators or possible problems into the knowledge transfer process stages. In addition, the possibility to analyse the different viewpoints, for example the role of key persons, motivation and most challenging issues in the knowledge transfer process is very valuable to increase the understanding of the managerial perspective on these issues. To see the different viewpoints of the theories, the most important issues of the knowledge transfer process are listed and the viewpoints of the theories into these issues are collected into a table. First, the table is presented and after that, the common features and also the greatest differences in these theories will be analysed.

	Gupta & Govindarajan 2000	Kostova 1999	Lucas 2006	Minbaeva 2005	Szulanski 2000
The theoretical focus of the study	The study formulizes a theoretical framework of the determinants of intra-MNC knowledge transfers. **Research question:** What are the determinants of intra-corporate knowledge outflows from and inflows to foreign subsidiaries?	The study investigates the transfer of strategic organizational practices in the MNC. Model draws on the idea that transfers are embedded in three types of context – social, organizational and relational – that operate at the level of the country, the organization and the individual, respectively. Those contexts affect the transfer process. **Research question:** Not mentioned	The study investigates the role of culture on knowledge transfer. The model uses Hofstede's (2001) framework and develops a conceptual model of knowledge transfer and the associated propositions **Research question:** How do subsidiaries deal with the challenges to knowledge transfer efforts posed by cultural differences?	The study investigates the impact of HRM practices to knowledge-related outcomes in an MNC. **Research question:** How various HRM-practices influence knowledge-related outcomes in an MNC?	The study identifies stages of knowledge transfer and factors that are expected to correlate with difficulty at different stages of the transfer. **Research question:** Not mentioned.

Empirical evidence of the study	Data from 374 subsidiaries within 75 MNCs headquartered in the U.S, Europe and Japan.	No empirical evidence.	No empirical evidence.	Data from 92 subsidiaries of Danish MNCs located in 11 countries.	Data from 122 transfers of organizational practices within 8 firms.
Definition of knowledge transferred	Knowledge is defined as *"know-how."* Study discusses *marketing* know-how, distribution know-how, packaging/design technology, product designs, process designs, purchasing know-how and management systems and practices.	Strategic *organizational practices* are those practices considered to be dominant, critical or crucial for achieving the strategic mission of the firm.	*Knowledge* is embedded in technologies, routines, practices and people.	*Knowledge* is defined as marketing know-how, distribution know-how, packaging design/technology, product designs, process designs, purchasing know-how and management systems and practices.	*Transfer of best practice* inside the firm connotes the replication of a superior internal practice within the organization that provides better results than any known alternatives. Practice refers to the organization's *routine use of knowledge.*
Stages of the transfer process	Not mentioned.	Emphasis of the study is on the implementation and internalization stage of the practice transfer.	Once knowledge is acquired, one must make adjustments such that it can fit into the new context. That is, it needs to be transformed into be applicable in the new environment where it can be employed.	The knowledge transfer process is explained to start from planning issues (e.g. staffing). The HRM-practices should make it possible for the knowledge recipient to apply and utilize the new knowledge.	The process consists of four stages that are initiation, implementation, ramp-up and integration stage.

Key persons involved in the process	*Both individual employees and managers* are responsible for knowledge transfer.	The success of transfer is thought to reside primarily in the individual *employees at the recipient unit.*	The theory sees MNC as a network, where the key role in knowledge transfer is on all *employees and their mutual relationships*.	The main role lies at *HRM-department* that should manage the knowledge transfer process so that it is as efficient as possible. As employees have an important role, because they apply knowledge.	The knowledge *sender's* involvement and contribution is most needed for the initiation and implementation stages. Attributes of the *recipient* are likely become increasingly important as the transfer unfolds. *Managers* should coordinate knowledge transfer efforts.
The role of motivation in the transfer process	Motivation has impact on employees' willingness to acquire knowledge and thus it has impact on knowledge inflows to the subsidiary. Motivation did not seem to have impact on willingness to share knowledge with other units and thus it has not impact on knowledge outflows from the subsidiary.	Motivation in the form of organizational commitment, job satisfaction and psychological ownership are mentioned to be important in the institutionalization stage of practice transfer.	Motivation is an important element in knowledge transfer. It is important to understand that people from different cultures motivate from different things.	Motivation is important and HRM should provide different motivational practices, such as promotion and compensation.	A highly motivated recipient can both initiate a transfer but also complicate its implementation.
How is a successful knowledge transfer defined?	Not mentioned.	Practice transfer is successful when is has been implemented and internalized at the recipient unit and the employees have developed a sense of ownership towards it.	When knowledge transfer efforts provide the desired results and the new knowledge becomes embedded within the organization's fabric.	Not straightly mentioned, but application of knowledge is considered important.	The transfer has succeeded when the use of new knowledge becomes gradually routinized at the recipient unit.

Possible problems in the process	Motivational problems, too low number or quality of knowledge transmission channels, lack of absorptive capacity and low status of subsidiary's knowledge stock.	Social context: Differences in national cultures, norms, values, laws and rules between the subsidiary and the parent company. Organizational context: Different organizational cultures, values and communication patterns. Relational context: Also low trust, identification and commitment to parent may cause the situation that subsidiary is not motivated to implement a practice.	Cultural differences: motivational problems, lack of managerial commitment to knowledge transfer, lack of control, lack of autonomy, willingness not to take a risk, different values.	The knowledge receiver's do not have ability to recognize value of new information and apply it to commercial ends (low absorptive capacity). Motivational problems. The organizational culture does not offer learning opportunities and systems.	Problems to recognize opportunities to transfer knowledge and to decide whether to pursue it, communication problems between the source and recipient, coordination and motivation problems, lack of skills to utilize the knowledge, unexpected problems that occur during the process, problems in acceptance of the practice at the receiving unit and unlearning barriers.

Possible facilitators in the transfer process	Other subsidiaries' appreciation of single subsidiary's knowledge stock, a variety of knowledge transmission knowledge transmission channels (both formal integrative mechanisms and corporate socialization mechanisms), incentives that increase motivation, headquarter-subsidiary decentralization, a greater number of local nationals in the subsidiary's top management team.	Similarity of regulatory, cognitive and normative institutional environment and values between the parent and the subsidiary. Also an organizational culture that has positive attitudes towards learning, innovation and change facilitate the practice transfer. Also commitment to parent, identifying and trusting the parent facilitate the transfer.	Similar cultures, managerial commitment to knowledge transfer, common and clear rules of knowledge transfer and incentives.	Extensive recruitment and selection procedures for new employees, establishment of objectives and targets for the self-development and training of employees, promoting employees from within the firm, internal job transfers, performance-based compensation system that reward employees for their job and personal contribution to organizational performance. A combination of HRM-practices has greater effect on organizational outcomes than the sum of the individual effects from each practice alone.	Organizations should understand the transfer process so that they can beforehand anticipate the possible knowledge transfer problems. Organizations should also try to learn from the previously occurred and solved transfer problems.

Table 2: Summary of five processual approaches to knowledge transfer issues in an MNC

2.4.1 Similarities across the five process studies

"Knowledge transfer should be regarded as a process of reconstruction rather than a mere act of transmission and reception" (Szulanski 2000, 23).

This viewpoint had been taken in each of the analysed studies. The concept of knowledge was defined slightly differently in each of the studies but all of them separated knowledge clearly from data and information. The embeddedness of knowledge into the organization and its routines was included to the definitions. Perhaps the most widely interpretations of knowledge were made by Kostova (1999) and Szulanski (2000) who discuss knowledge with a concept of practices.

Implementation and integration stage of knowledge transfer were seen important in all of the studies. Gupta & Govindarajan (2000) did not mention any distinct stages of knowledge transfer, but because they highlight the importance of absorptive capacity in knowledge transfer process, i.e. the ability to apply knowledge, it can be stated that also they see implementation and integration of knowledge as vital stages of knowledge transfer.

None of the studies are able to name a single person who would have a responsibility of knowledge transfer issues. However, the responsibilities and roles were emphasised slightly differently in the studies. Whereas Gupta & Govindarajan (2000), Lucas (2006) and Szulanski (2000) state that everyone in an organization is responsible for it, Kostova (1999) highlights the importance of the recipient for the process. Minbaeva (2005) also sees the role of employees important but considers the HRM department to have the greatest role in it, because it can plan different practices and actions to facilitate the processes.

All approaches except Szulanski (2000) see motivation as a pure facilitator in the knowledge transfer process. Szulanski claims that a highly motivated recipient could also complicate the implementation of new knowledge or practice. One reason for this is that the enthusiasm of the receiver can lead him/her to make seemingly straightforward modifications into major projects (ibid, 24). All studies advise MNCs to pay attention to the motivation of their employees. Lucas (2006) and Minbaeva (2005) recommend the companies to motivate the employees by providing them with incentives.

The category where the definitions for successful knowledge transfer were given was included in the table in the hope that it would provide some guidance for the managers on how to evaluate the success of knowledge transfer practices. The importance of this issue was covered in the literature review earlier and it was seen that the task of evaluating the success of knowledge transfer practices is very challenging (Björkman et al. 2004, 452). The difficulty of defining the successful transfer can also been from the table. The implementation of practice is seen an indicator of success in all studies except Gupta & Govindarajan (2000) who do not discuss the issue in their study. The most interesting viewpoint on the success issue is stated by Kostova (1999) who has included the sense of ownership of the practice in her definition.

After dealing with the similarities of the five studies the analysis moves to examine the greatest differences in the studies. These were found in their views on the most problematic issues and possible facilitators in the knowledge transfer process.

2.4.2 Greatest differences between the five process studies

The greatest differences in the studies can be found in their views on the most problematic issues and possible facilitators of knowledge transfer process. To illustrate these differences, these studies will be briefly discussed one by one.

Gupta & Govindarajan (2000)

According to Gupta and Govindarajan (2000), the knowledge transfer problems in MNCs have four causes: motivational problems, too low number or quality of knowledge transmission channels, lack of absorptive capacity and low status of subsidiary's knowledge stock. As a facilitators they mention the use of incentives that motivate the employees, a variety of knowledge transmission channels, use of both formal integrative mechanisms and corporate socialization mechanisms, decentralization in headquarter-subsidiary relationships and a greater number of local nationals in the subsidiary's top management team. (ibid, 473-490).

Kostova (1999)

Kostova (1999) has developed a theoretical framework that specifies the factors that contribute to the success of the transnational transfer of strategic organizational practices within MNCs. According to her, there are three contexts where the transfer process exists - social, organizational and relational. She also takes three levels of analysis for the framework: country, organization and individual. Those levels reflect to transfer and integration of practices in each context (ibid, 308). The contexts will be discussed next.

Social context refers to cross-country differences between the knowledge transfer partners. Those include differences in the regulatory, cognitive and normative environment of the transfer partners. For example, different laws and rules, different ways to interpret things and different values and norms held by the individuals in a given country can make knowledge transfer challenging. Therefore similarity in institutional contexts between the countries makes the practise transfer less challenging. (ibid, 317).

Organizational context refers to the organizational culture of the recipient unit. A cultural orientation of that unit toward learning, innovation and change will likely result in more positive attitudes toward the transfer process and will lead to its eventual success. (ibid).

The third context is the relational context that refers to relationships between the knowledge transfer partners. Commitment to, identity with and trust in the knowledge transfer partner will affect the knowledge transfer success. The role of commitment and trust in knowledge transfer process was discussed already earlier in this study but identity issues provide an interesting viewpoint for the study. Identifying with the parent company will reduce the effect of not-invented-here syndrome and therefore the practices will be viewed to a less extent as strange or coming from an outsider. (ibid, 318).

The effect of different contexts on transnational transfer of organizational practices is presented in a figure below.

Figure 4: Model of success of the transnational transfer of organizational practices (Kostova 1999, 313)

As a conclusion, Kostova (1999) states that understanding these contexts is helpful for the managers considering knowledge transfer issues in an MNC. Her advice for the managers is to invest in and build up social capital of the firm. (ibid, 321).

Lucas (2006)

Lucas (2006) discusses the role of culture in knowledge transfer within MNCs. He states that knowledge transfer problems stem from the cultural differences and thus the quality of relationship between subsidiaries and with the home office has major implications for knowledge transfer. As a basis for his analysis are the culture dimensions developed by Hofstede (2001). These components include individualism/collectivism, masculinity/femininity, power distance and uncertainty avoidance. (Lucas 2006, 258-271). Those dimensions and the related challenges will be discussed next.

Individualism/collectivism

Individualism/collectivism is the degree to which self-interest. It reflects the concern of individuals with their own well being versus the well being of others. The extent to which individual self-interest supersedes group interest is an important determinant of where knowledge is transferred from and who acquires it. (Lucas 2006, 262).

Individualistic cultures are generally driven by self-interest rather than by group interest. Therefore they are likely to ask a question "*To what extent does this benefit me*?" rather than focus on the overall benefit of an organization. Unless these subsidiaries determine that there is some benefit to be gained, they are unlikely to engage in the process. Thus, the motivational issues are very important here. (ibid, 262-263).

Successful knowledge efforts in these cases will be only possible with the direct involvement of the home office. Head offices need to manage resistance to sharing knowledge while promoting knowledge transfer efforts. For these purposes, directives, dictates and persuasion are suitable. (ibid, 263-264).

Masculinity/Femininity

Masculinity/femininity is the willingness to promote societal values. Typical features for masculine culture are competition, orientation to results and self-interest. In feminine culture assertiveness is downplayed and differences are resolved through compromise and negotiation, because it is thought that both parties can win and promote cooperation. These represent two opposite views at dealing with change and accepting new ways of doing things. For cooperation, it is suggested that masculinity cultures should be convinced that there is some gain accruing in doing so. (ibid, 270-271).

Power distance

Power distance (PD) is based on people's perception of inequality. It fosters a notion of dependence and may be small or large. Small power distance supports a participative approach to decision making and there is often willingness to consult rather than impose one's will for free exchange of ideas. Large power distance situations support an autocratic approach to decision-making that can lead to either total acceptance or total resistance of new practices. When there is misalignment between the parties on the PD index, the head office needs to carefully monitor the efforts and mandate when transfers should occur and under what conditions. Compromises may also need to be done. (ibid, 266-267).

Uncertainty avoidance

Uncertainty avoidance (UA) is the reluctance to deal with ambiguity and is directly related to the willingness to embrace change. In cases of strong UA, change is seen as dangerous and people in these environments prefer formalized structures and strict and detailed directions. In cases of weak UA, change is appreciated and there is a continuous desire to experiment with things that are new and continue to learn. Therefore, the head office should provide with tangible incentives to enact change and prevent the imposition of penalties for failures associated with change. (ibid, 267-269).

As a conclusion of his model, Lucas (2006) states that it is important to note that inter-subsidiary knowledge transfers are likely to be most effective when they involve subsidiaries that are located in similar cultural contexts. Otherwise, issues of strategic importance and strategic direction force the home office to become actively involved in the process. At the end of his study he also reminds that countries and their cultures evolve all the time. For example, a society that is collectivist may begin to adopt individualistic values and this will affect the ability of MNCs operating in this society to pursue knowledge transfer goals. (ibid, 272). Based on the earlier discussion in this study one could therefore conclude that when measuring and evaluating the success of knowledge transfer practices in an MNC, also the effect of culture and its evolution should be taken into consideration. An example of that kind of situation might be when the companies notice that the old practices are not leading to as good transfers as they used to do.

Minbaeva (2005)

In her large empirical study, Minbaeva (2005) investigated the influence of human resource management (HRM) practices on knowledge transfer in an MNC. She found that an extensive employment of certain HRM practices enhance knowledge transfer within MNCs. Those practices will be discussed next.

The common feature for the suggested HRM practices in her study was that they affect the knowledge receiver's ability and motivation to utilize new knowledge and therefore they also support the organizational learning environment. Those practices include staffing, appraisal, training, promotion and compensation.

According to her, extensive staffing procedures that include examination of competencies, extensive recruitment and selection procedures are able to generate a pool of skilled candidates with a desired level of knowledge and skills who in future show the higher ability to absorb knowledge. Performance appraisal provides employees with feedback on their performance and competencies and therefore offers direction for enhancing their competencies to meet the changing needs of the firm. It is also suggested that the establishment objectives and targets for the self-development and training of employees could be integrated as part of performance appraisal systems. Trainings were seen important and they were advised to be organized systematically so that they can help to eliminate the skill deficiencies identified through performance appraisal. It was explained that promoting employees from within the firm and also through a performance-based compensation system that rewards employees for the value of their job can increase the motivation of employees and their personal contribution to organizational performance. (Minbaeva 2005, 140).

As a conclusion of her study, Minbaeva reminds that HRM practices should be applied in combination. This is because in combination they have greater effect on organizational outcomes than the sum of individual effects from each practice alone. (ibid, 140).

Szulanski 2000

Szulanski (2000) has created a model that identifies different stages of knowledge transfer process and possible predictors of difficulty in each stage. Those process stages were mentioned already in the chapter 2.2. but in this section they will be analyzed in connection to the difficulties related to these stages. Knowledge transfer stages are presented in a figure below.

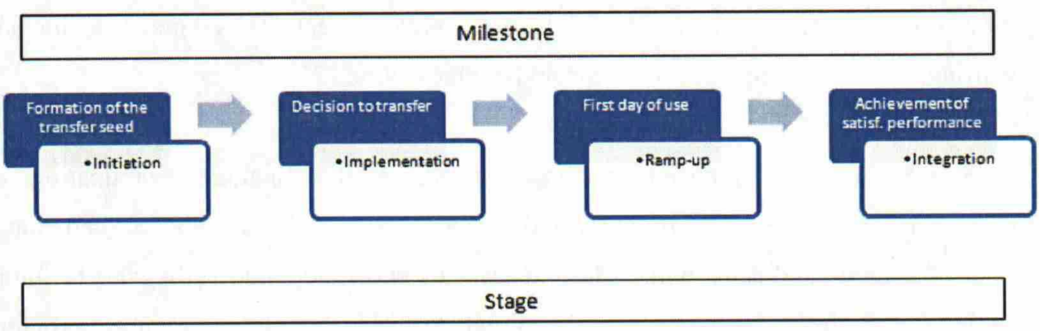

Figure 5: The process of knowledge transfer (Szulanski 2000, 13).

In the initiation stage of knowledge transfer process the difficulty may be to recognize opportunities to transfer and act on them. In the figure above he calls this as a difficulty for "*formation of the transfer seed*". This uncertainty can be reduced when there is evidence that the knowledge to be transferred has proven robust in other environments and the recipients perceive the source as reliable, trustworthy or knowledgeable. Also planning is useful at this stage. For that purpose, process documentation, costs evaluation, other evaluation yardsticks, timing and sharing mutual obligations of the participants are good methods. (ibid,13-14).

When the decision to transfer knowledge is made, the implementation stage of the process can start. In the key role here are the source and the recipient. The difficulty at this stage may be caused by the differences of their languages and cultural conventions and therefore the quality of their relationship is in an important role here. There may also be coordination problems if the recipient unit is large or the source or recipient deviates from agreed-upon responsibilities. According to Szulanski, planning and coordination is very important for the success also at this stage. Additional documents, lending or donating the source's own skilled personnel or training the recipient's personnel may be required for a successful transfer. (ibid, 14-15).

When the receiver starts using acquired knowledge, the process has reached the ramp-up stage. Absorptive capacity of the recipient, i.e. the ability to utilize new knowledge, depends on its existing stock of knowledge and skills and is important at this stage. Unexpected problems may occur at this stage and therefore absorptive capacity can help to understand and resolve them. (ibid, 15).

In the integration stage of the process new knowledge becomes gradually routinized in an organization. At this stage external and internal events may disturb the process. Examples of these are environmental changes, arrival of new personnel or the appearance of a clearly superior alternative. According to Szulanski, organizational subunits may differ in their ability to maintain routine operation and can have better mechanisms to cope with the possible disturbances. (ibid, 16).

Based on the model by Szulanski (2000) it can be stated that the careful planning is very important for the success of knowledge transfer practices in an MNC. Understanding the model can provide insight into the working of different organizational arrangements to transfer knowledge. It seems valuable to put attention to the mutual relationships of the knowledge source and the recipient and guarantee that the level of the absorptive capacity of the recipients is at a adequate level, because it facilitates the ramp-up and integration of knowledge. As an interesting conclusion he states that difficulties in the process may still not always need to be only a bad thing for the process. This is because what is learned from solving those problems will likely to be remembered and applied in future transfers (ibid, 25).

2.4.3 Issues overlooked in the five process studies

There were some issues that were overlooked in the analysed five studies. Firstly, despite the different knowledge transfer problems and channels that were discussed, there was given no criteria or advice of how to choose the optimal channels for different kinds of knowledge transfers. Secondly, the importance of timing and regularity of knowledge transfer was neglected in the studies even though that one could assume it to be critical especially in MNCs where the business environments are changing continuously and at a fast pace. Thirdly, no advice was given on how to evaluate and measure success of knowledge transfer practices. These issues remain to be covered in the empirical part of a study.

2.5 The proposed framework for the study

The aim of this chapter is to present the findings of the literature as a theoretical framework. It was discussed that knowledge transfer levels are interrelated. Figure 6 illustrates these relationships.

In the following figure is the proposed framework for the study. It presents the relationships between different factors that were discussed in the literature review. First, different knowledge levels - corporate, subsidiary and interpersonal level - are presented. At the bottom of the figure is the knowledge transfer process into which these three levels affect on. Also knowledge characteristics have an effect on the nature of the process and therefore it is also marked there. On the left-hand side of the levels are boxes that illustrate the difficulties at different knowledge transfer levels. On the right-hand side of the levels are boxes that present the different facilitators at the knowledge transfer levels. As was discussed in the literature, context has also a lot of impact on the knowledge transfer process. Therefore it is marked at the top of the figure.

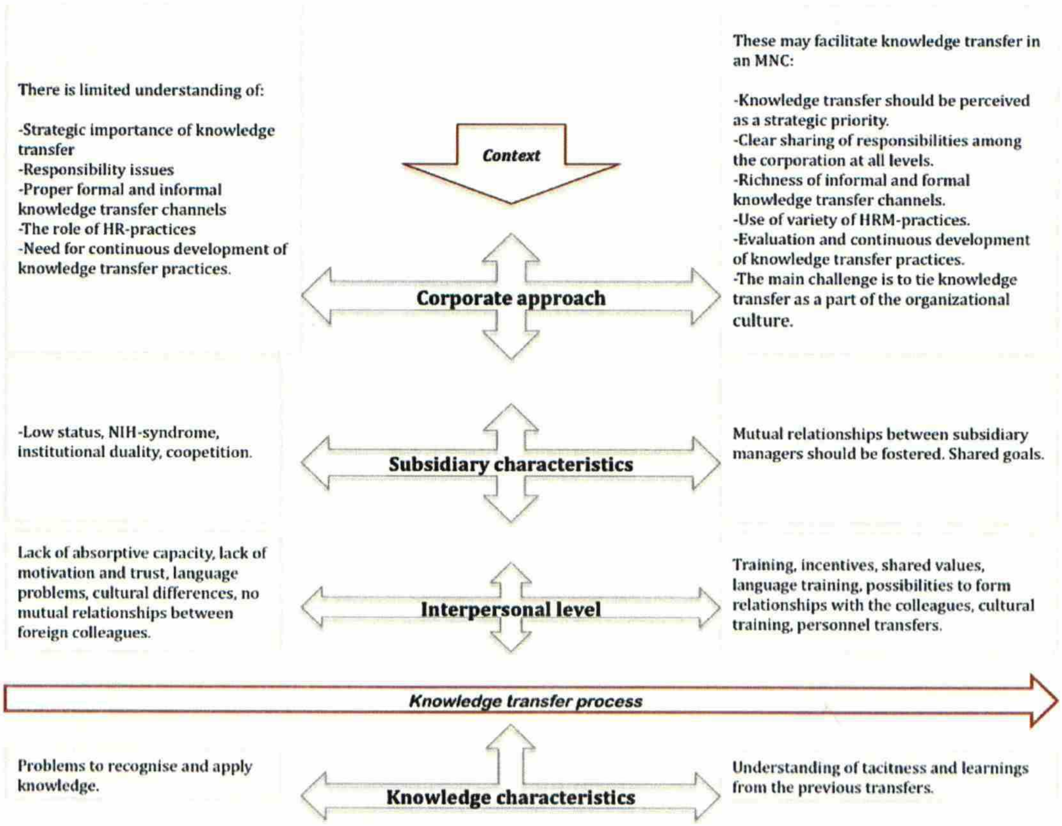

Figure 6: Proposed framework for the study

The framework will be used as a basis for analysis in the empirical part of the study. After the analysis, some additions or changes for the framework can possibly be made. A revised framework will be presented in the conclusions section of the study.

3 METHODOLOGY

This chapter describes how the empirical part of this study was conducted. First, the choice of research method is discussed. Thereafter, the choice of the case company for the study is justified and the process of data collection is described. Finally, data verification and the validity and reliability of the study will be examined.

3.1 Research method

The choice of research method arises from the research questions, which in this study focus on the inter-unit knowledge transfer between foreign subsidiaries. The research questions of the study were formulated as follows:

1. What are the key issues in the inter-unit knowledge transfer process of an MNC?
2. What are the main facilitators of knowledge transfer in an MNC?
3. What knowledge transfer practices are used in Janssen-Cilag Nordic?

To be able to answer the research questions of this study, a very wide perspective on the knowledge transfer issues had to be taken. This perspective also reflects on the proposed framework of the study that covers three levels of analysis and sees knowledge transfer as a process instead of a single act. To cover all those issues, a single case study was chosen for the research method. Several reasons support this choice. Firstly, it has been argued in the literature that if the research questions require detailed understanding of social or organizational process, which both are focus areas of this study, a case study is a particularly suitable method because of the rich data that can be collected in context (Hartley 2004, 323). Case study was also justified for this study as it allows the investigator to retain the *"holistic and meaningful characteristics of real-life"*. In addition, it is the preferred strategy when *"how"* and *"why"* questions are being posed. (Yin 2003, 1).

After the decision to conduct a case study, a choice of the number of cases had to be made. Multiple cases would have made comparisons possible, but a single case was seen reasonable for this study. The choice of a single case stemmed from the knowledge transfer literature where it was stated that MNCs might not even have been considering knowledge transfer issues in their companies (Birkinshaw & Arvidsson 2007, 33). Therefore, a single example of a multinational corporation that has a knowledge transfer strategy and is eager to develop in that area was seen as a valuable contribution for the theoretical part of the study. This justification is also supported by Yin (2003) who states that one of the rationales for a single case study is when a case represents an extreme or unique case. Another rationale for single case is that it is a representative or typical case. (ibid, 41).

There was a need for several levels of analysis because of the research questions of the study. Firstly, as the focus area of the study is on inter-unit knowledge transfer, two subsidiaries were needed for the analysis. Secondly, the literature review had revealed that there are several levels of knowledge in a company and therefore it seemed reasonable to get data both from the managerial and employee levels in a company. These subunits can often add significant opportunities for extensive analysis that thus enhance the insights into a single case (Yin 2003, 46). According to Hartley (2004, 325), detailed case studies may be essential in cross-national comparative research where an intimate understanding of what concepts mean to people, the meanings attached to particular behaviors or how behaviors are linked is essential. Case study is also a useful technique where exploration is being made of organizational behavior that is informal, unusual, secret or even illicit. In addition, the case study method is particularly well suited to international business research where data is collected from cross-border and cross-cultural settings (Ghauri 2004, 111).

A major strength of case study data collection is the opportunity to use many different sources of evidence (Yin 2003, 97). In this study, both interviews and a survey were used. Additional material was also gained from the Internet-pages of the case company. Because there are two different data collection methods this study is called a *mixed case study*.

When using mixed methods, three decisions should be made. Firstly, the order of the methods should be decided, i.e. are they conducted sequential or parallel. In this study they were done sequentially because the survey questions were revised after the first interview. The roles of the methods should be understood, i.e. are they equal or is one method more or less dominant than the other. In this study, they were equal. Lastly, the purpose of the used methods should be understood, i.e. is the purpose of using the method knowledge based, topic related or method related. In this case it was knowledge-based because two methods were chosen because they can provide more knowledge together than the sum of the methods used separately. (Hurmerinta-Peltomäki & Nummela 2004, 165-166).

The overall process of choosing the case company and the units of analysis was surprisingly difficult. First, the researcher tried to get two case companies for her study, Janssen-Cilag Nordic and Novo Nordisk Oy. The former case company was very interested in the topic and the issue was presented for managers. However, the manager who could have been able to give the permission for the study was on a parental leave and the researcher would have had to wait for their permission for almost a month. Because of the time limits, the researcher had to concentrate on only one case company.

The contact and permission issues were rather easy to get from Janssen-Cilag Oy and the key informant Pasi Tonteri was very committed to the study during the whole process. Still, there were a lot of problems with data gathering, because the Swedish subsidiary was not as committed to the research as the Finnish subsidiary was. One interview was cancelled and the potential interviewee was doubtful whether the Swedish employees would have time for the survey. With the help of Katarina Hamnström the interview with Pernilla Klöfver was organized and Swedish employees were persuaded to participate in the survey. A higher number of respondents for the survey would have made the case more valuable but the small sample can be justified with the difficulty related to this topic. As professor Lawrence Welch commented on this topic in the Master's Thesis seminar on 28.2.2008, it is challenging to motivate the employees to transfer their knowledge for a researcher.

3.2 Choice of the case company

Janssen-Cilag was chosen for a case company for this study. The units of analysis were its subsidiaries in Finland and Sweden. The reasons for choosing this company for the analysis will be discussed next.

Firstly, Janssen-Cilag is a multinational pharmaceutical company that operates almost in every country in the world. It is part of Johnson & Johnson, one of the world's largest multinational pharmaceutical companies and this background made Janssen-Cilag an interesting example of a multinational corporation.

Secondly, a discussion with Nordic medical affairs director Katarina Hamnström from Janssen-Cilag AB, Sweden in July 2007 confirmed that Janssen-Cilag would be a good example for the study. When asked about her daily duties at her job, Katarina Hamnstöm argued:

> *"Our company is really putting effort on efficient knowledge transfer and communications issues."*

The importance of learning and continuous development was also highlighted in the Internet-pages of the company, where it was stated that:

> "*Our corporate culture is dynamic; we are continuously looking for new challenges and working practices.*" (Internet pages of Janssen-Cilag Oy 10.3.2008).

Thirdly, the regional sector of Janssen-Cilag Nordic is rather small, compared to for example to the whole European spanning area, and therefore one could assume that the regional subsidiaries may have closer contacts with each other than in the region that consist of for example 20 countries. Therefore, it also seemed reasonable to investigate two units within that region. The Finnish subsidiary was preferred for the study because of the researcher's possibility to visit the office and personally meet the interviewee. The Finnish contact person was able to help with the contacts to Swedish office.

Next, the data collection process is described.

3.3 Data collection

Data was collected from interviews, a survey and the Internet pages of the company. In the next sections the data collection process will be discussed.

3.3.1 Interviews

In order to understand what were the corporate and subsidiary approaches for knowledge transfer issues at Janssen-Cilag Nordic, two managers were interviewed.

The interview questions were reviewed in the Master's Thesis seminar in order to guarantee that they could be understood without being familiar with the theory-basis of the study. The questions were sent for the interviewees beforehand by e-mail. This was done already in the contact phase of the research as the questions were thought to give a more comprehensive insight of the contents of the study. Another reason for this was that the case company wanted to see the questions so that they could make sure that the contents of questions are such that they do not cover any classified information and therefore will not leave the researcher too little information for her study.

Pasi Tonteri and Pernilla Klöfver were selected for the interviewees because of their similar working environment and tasks in the company. Pasi Tonteri is a sales manager in Finland and Pernilla Klöfver is a marketing manager in Sweden. Both of them belong to Janssen-Cilag Nordic and therefore, they are aware of the communication and knowledge transfer practices in their company. Two interviewees were considered valuable because this was thought to give a more objective picture of knowledge practices than an opinion of only one person. Two interviewees were also seen useful because they could complement each other's answers.

The first interview of Pasi Tonteri was conducted and recorded in 10.3. 2008 at Janssen-Cilag Finland in Espoo. Recording was helpful, because it made it possible to concentrate solely on the discussion. Finnish was chosen for the interview language because it is a mother tongue of the interviewee and the interviewer. This meant that the interview had to be translated into English in the later stage of the research. By sending the questions beforehand, the author wanted to make sure that the interviewee should not have to worry about the classified information-issues during the interview and therefore, he could answer the questions more informally. The researcher had an interview guide with her all the time but it was already beforehand agreed that it was suitable to ask for additional questions or comments during the interview. The interview took one hour.

The second interview of Pernilla Klöfver was conducted in 25.3.2008 by telephone, because the interviewer did not have a possibility to travel to Sweden and meet her face-to-face. It was not possible for the researcher to record the interview, but because the questions were the same that were asked from Pasi Tonteri, it was quite easy for the researcher to understand the context and therefore make the notes during the interview. English was chosen for the interview language because the interviewee is fluent in English and because the interviewer though that it would be easier for her to make the notes during the interview in English than in Swedish. Also the interviewee Pernilla Klöfver received the questions beforehand by e-mail and both she and the interviewer had the questions in front of them during the interview. The interview lasted for an hour.

Piloting

After the interview of Pasi Tonteri on 10.3.2008, the survey questions were revised with him to better meet the practices and knowledge transfer issues used in Janssen-Cilag Nordic. For example, the question concerning the importance of knowledge transfer channels for the employees were comprehended with one additional option. After that the survey was conducted in Finland.

Also in Sweden the interview was followed by a survey. After that the draft analysis of the survey results and the interviews were made, they were sent for Pasi Tonteri for commentary. He commented on the results by a telephone discussion in 28.4. 2008 and analyzed the possible reasons for the certain results. These comments were very valuable for the data analysis.

3.3.2 Survey

Whereas the interviews aimed at understanding the managerial perspective on knowledge transfer issues in Janssen-Cilag Nordic, the survey was conducted in order to understand the attitudes and behavior of the employees at Janssen-Cilag Nordic. The survey consisted of three background questions, 28 statements, 5 multiple-choice questions and one open question. It was conducted with a web-based questionnaire and the participants in Finland answered it in Finnish and the participants in Sweden answered it in Swedish. The Finnish survey questions are included in the appendix 1 and the Swedish survey questions are included in the appendix 2 of the study.

The survey questions were first written in English and then they were reviewed with fellow students and the supervisor in the Master's Thesis seminar. Comments were asked about understanding of the statements and questions and the time spent on for filling the questionnaire. After that the survey questions were translated into Finnish and Swedish. A possibility to take part in the survey with the mother tongue of the participant was recommended also in the literature, where the cross-cultural researchers were advised to respond to language differences by translating the questionnaires into local languages (Marschan-Piekkari & Reis 2004, 235). A valuable help at this stage was the researcher's former colleague Benita Näsman, who both commented on the contents of the questions and also helped to translate the questions to Swedish. Her mother tongue is Swedish and to make sure that the translation will not affect the participant's answering style, help from native person was considered valuable. At this stage a pilot test was done at Janssen-Cilag with Pasi Tonteri who commented the survey before sending the final version for the employees in Finland and Sweden. It was evaluated that it would take 10-15 minutes to answer the survey questions.

In the end of March 2008, the motivation letter and the link to the survey was sent by e-mail for 50 employees in Finland and for about same number of employees in Sweden. The exact number of the Swedish employees who received the invitation is difficult to evaluate, because Pernilla Klöfver, Pasi Tonteri and Katarina Hamnström were all asking for their colleagues to participate for the survey and in addition to this, the link was also available in the Intranet.

Pasi Tonteri and Pernilla Klöfver sent the invitations for the survey because it was thought to motivate more employees to answer the survey if the request would be asked from someone from the company than from outside of the company. The importance of close relationships and motivation were also discussed in the literature (Inkpen & Tsang 2005, 157-158). The motivation letter for the employees in Finland was written by the researcher and was written in Finnish. It was signed and posted by Pasi Tonteri. The motivation letter for the employees in Sweden was also written by the researcher and was written in Swedish. It was signed and posted by Pernilla Klöfver.

The response rate in Finland was 36 %. The response rate in Sweden is probably lower than in Finland because there are 115 employees and the number of Swedish survey respondents was only 11.

In Finland, the survey answers were gathered in three days despite that the time to participate was one week. Finnish employees received the request to take part in the survey only once, but employees in Sweden needed to be motivated much more. First, Pernilla Klöfver posted the link to the company's Intranet. This resulted only in three respondents. After a few days the researcher sent a Swedish motivation letter to Pernilla Klöfver and asked for her to remind the employees of the survey again with this letter. At this stage, also Pasi Tonteri contacted one of his Swedish colleagues and asked for help from her. These actions resulted in two additional respondents. The final effort to get more respondents from Sweden was made by a joint e-mail that was sent to Katarina Hamnström, Pernilla Klöfver and Pasi Tonteri. The joint e-mail motivated five Swedish employees to take part in the survey and then the final number of Swedish respondents increased to eleven employees.

The number of respondents in Finland was fifteen and ten in Sweden. Yet, there were also a few respondents that had started to answer the survey but had then stopped the answering in the middle or almost at the end of the survey. Because of the low response rate of the survey, also these answers were considered valuable for the analysis. Because of this altering number of respondents in each question, the number of respondents in the questions varies between 15-18 respondents in Finland and 10 to 11 respondents in Sweden. This means that the total number of respondents varies between 25 and 29. In the following table, the background information of the respondents is presented.

	Finland	Sweden
GENDER		
FEMALE	13	3
MALE	5	8
MOTHER TONGUE		
Finnish	16	0
Swedish	1	11
English	1	0
LENGTH OF EMPLOYMENT AT JANSSEN-CILAG		
UNDER A YEAR	1	0
1-3 YEARS	6	2
OVER 4 YEARS	11	9
UNIT		
Medical	5	1
Finance	4	0
Marketing/Sales	4	6
R&D	2	0
GCO	2	0
IT	1	0
Unknown	0	4
TOTAL	**18**	**11**

Figure 7: Background information of the survey respondents

Most of the Finnish respondents were females and most of the Swedish respondents were men. Employees in Finland talked Finnish as their mother tongue except one employee. All Swedish respondents talked Swedish as their mother tongue. Most of the respondents in both countries had been working in Janssen-Cilag for more than 4 years. The respondents were working in various units.

Due to the rather low number of respondents, all the figures of the analysis will show the number of respondents and any percentage analysis is not used. The bundles of statements are presented in such order that the statement that the respondents were mostly in the same opinion is presented first in the figure. Also the results from Finland are always presented before Sweden because the number of respondents in Finland was larger than in Sweden.

3.3.4 Data verification

As was mentioned earlier, the copy of the analysis part of the study was sent to Pasi Tonteri for comments. This was done to make sure that the contents of the interviews were understood correctly and also to check that the conclusions made from the survey would not contain conclusions that could be explained by such issues or organizational practices that were not discussed in the interviews.

3.3.5 Reliability and validity

The reliability and validity of this study will be discussed next.

Reliability

Reliability is the accuracy of a measurement procedure. It aims at minimizing the errors and bias of research. To increase the reliability of study, the researcher should maintain a chain of evidence. This principle means that a later investigator should arrive at the same conclusions as the earlier researcher if the exactly same research procedures are followed. This also means that no original evidence has been lost. (Yin 2003, 105). There was no possibility to record the telephone interview of Pernilla Klöfver but an interview of Pasi Tonteri was tape-recorded and transcribed. Also the material from the survey was saved both in its original and analyzed form. Therefore, a clear chain of evidence was maintained in this study.

A finding in the literature supports the second issue that increases the reliability of this study:

> *"Most data on knowledge-related outcomes has been collected using perceptual scales and the data's validity was often limited by the use of only one respondent per MNC- usually a CEO at the MNC's headquarters. To minimize a risk of common method bias, future studies may benefit from collecting data on knowledge transfer from other respondents, such as subsidiary representatives."* (Minbaeva 2007, 570-571).

In this study, two managers from different subsidiaries were interviewed. The interviewees highlighted different things in their interviews that provided richer data for the analysis than what would have been gained from a single interview.

The third issue of the reliability of this study has to do with the generalization of the results. As was already stated, the number of survey respondents was lower than was expected and does not necessarily provide a representative sample of the employees in Janssen-Cilag Nordic. However, some direction could still be seen in the results and therefore some conclusions were possible to draw from the sample. In that sense, a conclusion by Hartley is very supporting:

> *"The generalization in case studies is about theoretical propositions, not about populations."* (Hartley 2004, 330)

Therefore the data analysis was actively discussed with the learning from the literature review.

Validity

Validity is the extent to which a test measures what the study actually aims at measuring. To increase the validity of a study, it is useful to have multiple sources of evidence. According to Yin (2003), any finding or conclusion in a case study is likely to be much more convincing and accurate if it is based on several sources of information (ibid, 97-98). Multiple sources were also strength in this study, because the data was gathered from two interviews and a survey.

Another way to increase a validity of this case study was to give a draft analysis part of the study for a key informant Pasi Tonteri for review. According to the literature, the reviews made by key informants can increase the validity of a case study (Yin 2003, 34; Hartley 2004, 330).

4 EMPIRICAL FINDINGS AND DISCUSSION

The proposed framework of this study was presented in the end of the literature review. The framework covered three levels of knowledge in an MNC. Their interrelatedness with each other and also with the knowledge transfer process was discussed. To make the data analysis logical, the contents of the sections in this chapter follow the same three-level structure as the framework of the study. First, the corporate level issues and the subsidiary characteristics are analyzed. After that, the impact of interpersonal level on knowledge transfer process is examined. Finally, the effect of knowledge characteristics on knowledge transfer process at Janssen-Cilag Nordic is evaluated.

4.1 Description of the case company

Janssen-Cilag is part of Johnson & Johnson that is one of the largest healthcare companies in the world. Johnson & Johnson has over 122 000 employees in more than 200 corporations around the world. The turnover of Johnson & Johnson was 53,3 billion dollars in 2006.

Janssen-Cilag develops, produces and markets prescription and over-the-counter medicines for a range of conditions in different therapy areas, such as pain, psychiatry and neurology. It has worldwide operations, and in Europe alone it employees over 6000 people. Finland, Sweden, Iceland, Denmark and Norway form a business region called Janssen-Cilag Nordic. It was founded in the beginning of 2007. The units of analysis in this study were Janssen-Cilag Oy in Finland and Janssen-Cilag AB in Sweden. Janssen-Cilag has 70 employees in Finland and 115 employees in Sweden. (Internet pages of Janssen-Cilag Oy and Janssen-Cilag AB 20.4.2008.)

4.2 Corporate approach to knowledge transfer

This section deals with the corporate level issues in the knowledge transfer process of Janssen-Cilag Nordic. The structure of the section follows the framework of the study and discusses the sources of new knowledge and skills, responsibility sharing and commitment, provided knowledge transfer channels and their effectiveness in daily work and also the measures to evaluate the knowledge transfer effectiveness at the case company.

Training and other sources of knowledge

There are many sources of new knowledge in Janssen-Cilag Nordic. In addition to the knowledge, skills and experiences gained at daily work, Janssen-Cilag Nordic also acquires a lot of information from outside of the company. Those sources include the Internet, customer contacts, IMS that delivers sales reports for them, and different regulative authorities in the Nordic countries. In Finland, examples of these authorities include National Agency for Medicines, Pharma Industry Finland and Pharmaceuticals Pricing Board.

To make sure that all employees regularly obtain new information for their work, the employees receive different kinds of task lists that they need to perform. Those task lists are formed in accordance with joint Nordic-level meetings and they include issues such as "*I have received this information*" or "*I have taken part in this training*". There are also certain certificates and tests provided in the company's Intranet that aim for the same purpose of guaranteeing a certain knowledge level of their employees.

Training also plays a key informant role in the company. Trainings are organized from different organizational levels varying from training possibilities provided at Johnson & Johnson University to Nordic- and country-level trainings. Some of the trainings are obligatory for the employees, for example some IT courses. In addition, the company has a quite flexible and supporting attitude towards their employees' personal interests and willingness to study by their work.

According to Pasi Tonteri, the trainings aim for "*equality and equal training possibilities among the employees*". In reality this seems to be challenging, due to language barriers. Despite that the official corporate language of Janssen-Cilag Nordic is English, the employees that use English very seldom at their work may not be so fluent in it. There are many small countries in Janssen-Cilag and therefore all trainings and tests are not translated into the mother tongue of the employees. This leads to a situation where some employees are left less informed than some of their colleagues with better language skills. The problems related to official corporate language were also discussed in the literature. In their study, Marschan-Piekkari et al. (1999) found that the problems related to official corporate language appeared to distort communication particular at lower organizational levels (ibid, 426). Language issues will be discussed in more detail in the analysis part where the interpersonal level of knowledge transfer is discussed.

Responsibility sharing and commitment to knowledge transfer

There are two functions at Janssen-Cilag that are responsible for knowledge transfer in the company. The IT department has an important role because it is responsible for

putting certain issues available to the Intranet and keeping it up-to date. The Nordic-level Intranet is rather new in the company and a lot of efforts have been made that it would meet the knowledge transfer needs and requirements of the company.
Another important function is human resources department. It organizes some of the trainings and also takes care of the compensation issues. All employees at Janssen-Cilag have personal development plans that include their personal goals and objectives. It is possible to mark knowledge transfer-related issues there and if their accomplishment is measurable and the objectives are achieved, it is possible to receive compensations for them. Compensations are also possible if the employee initiates a new idea that leads to efficiency, new strategy, increased sales etc. The role of the HRM-function of the case company is in line with the suggestions of Minbaeva (2005), who emphasised its role as a provider of practices that affect the employees' ability and motivation to transfer knowledge. Both training and compensation issues were mentioned by Minbaeva – she puts emphasis on how important it is to use these practices in parallel, because together they have greater effect on knowledge transfer than the sum of the individual effects from each practice alone (ibid, 126).

The interviewees were also asked whom or which departments are responsible for knowledge transfer issues at Janssen-Cilag Nordic. It was interesting that their answers were almost identical with each other. Both interviewees emphasized the common responsibility of the employees. As they put it:

> *"Actually we all have it; to communicate what is happening in our own areas and departments."* (Pernilla Klöfver)

> *"It is everyone's' responsibility to decide whether new knowledge is so important that the colleagues should be informed about it or that it should be published in the Intranet"*. (Pasi Tonteri)

The role of personal responsibility was investigated also in the survey. Majority of the respondents in both Finland and Sweden stated that it is their personal responsibility to actively exchange information about the work-related issues with their colleagues both home and abroad. The answers may partly show this kind of results because of the survey sample: the survey was targeted to employees who are actively in contact with their foreign colleagues, and therefore many of them have probably chosen this answer more because knowledge transfer is a “must” in their job rather than merely a friendly gesture. Therefore, two other statements were asked to get a wider conception of the personal attitudes and responsibilities of knowledge transfer issues. It was asked whether the employees have discussed the knowledge transfer issues with their supervisors and do they feel that it is not efficient working time if they help their foreign colleagues in their work-related problems. A majority of the respondents stated that they have discussed the knowledge transfer issues with their supervisors – this can probably be explained by the personal development plans that were discussed earlier. Most of the employees did not see it as inefficient working time if they helped their foreign colleagues in their work-related problems. Only a few respondents had differing opinions in these statements. The results are presented in the figure 8 below.

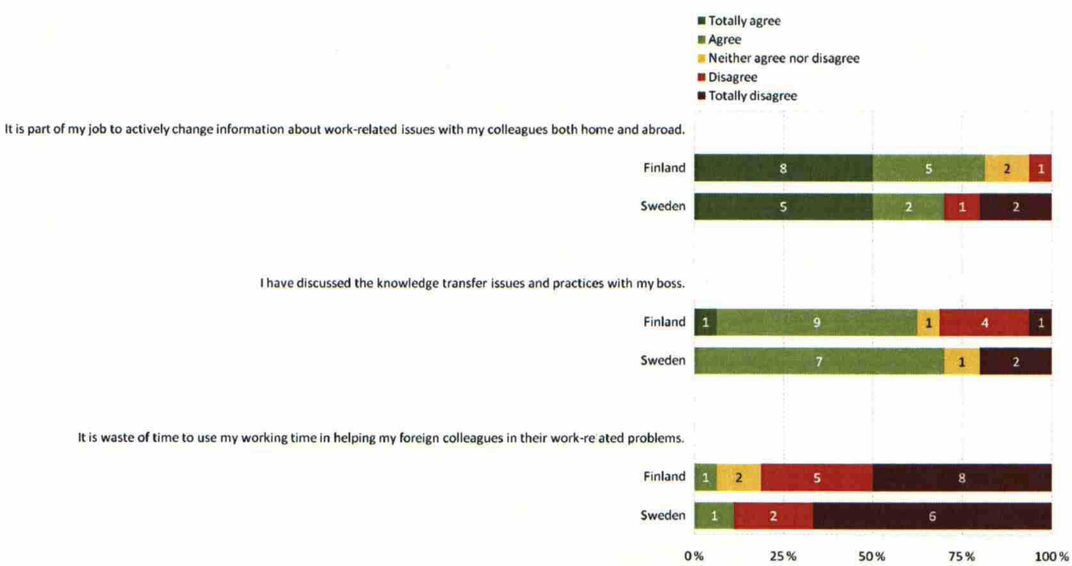

Figure 8: Personal commitment and attitudes towards knowledge transfer

In addition to personal responsibility, Pernilla Klöfver also considered the role of management and different boards very important, as they share a large amount of information in their meetings and therefore they can provide a lot of information for the employees. The importance of the commitment of the management to knowledge transfer was also emphasised in the literature (Conn & Yip 1997, 31).

Knowledge transfer channels provided by the company

The decisions about the richness of knowledge transfer channels are made at the corporate level of MNCs. In this section, the knowledge transfer channels, their importance for employees in their daily knowledge transfer and also the related challenges at Janssen-Cilag Nordic will be examined.

A variety of knowledge transfer channels at Janssen-Cilag Nordic include e-mails, Intranet, telephone conversations, telephone and web conferences, meetings, informal discussions and visits. The importance of different knowledge transfer channels for the employees was asked in the survey. The results are presented in a figure 9 below.

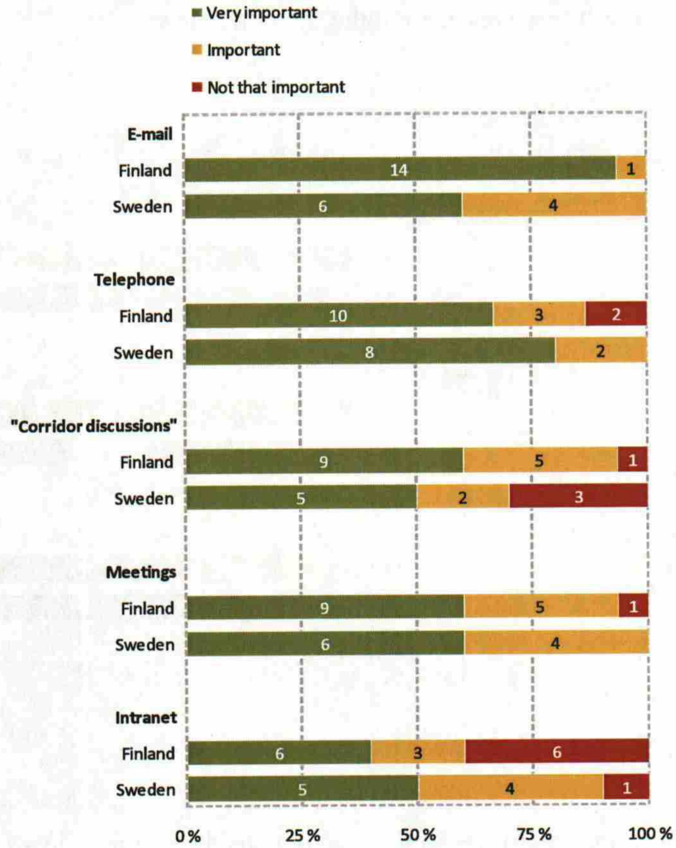

Figure 9: The importance of knowledge transfer channels

It can be seen that e-mail, telephone and meetings were seen important or very important knowledge sources by both Finnish and Swedish employees. Corridor discussions, i.e. informal discussions seem to be more important for the Finns than for the Swedish employees. Intranet as a knowledge transfer channel divides opinions especially in Finland. Some employees seem to get a lot of benefits from it whereas others do not see it at all important. It is interesting that Swedish employees seem to be more satisfied with the Intranet than Finnish employees.

The employees were also asked to choose their most important source of knowledge from the list. With only one exception, the Finns agreed that the most important source is e-mail. In Sweden, the answers were more scattered and also telephone, meetings and Intranet were mentioned. The results are presented in the figure 10 below.

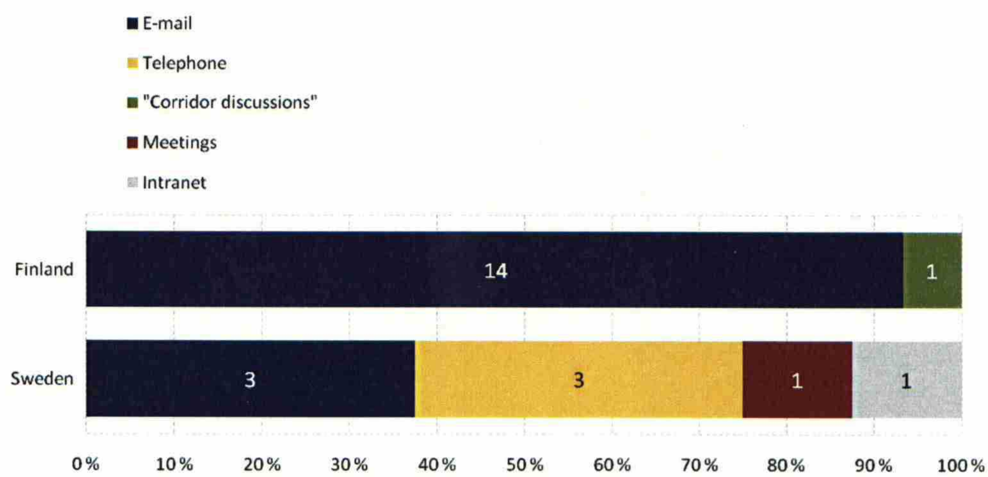

Figure 10: The most important knowledge transfer channel for the employees

E-mail is a much-used knowledge transfer channel at Janssen-Cilag. It is especially important for the Finns, despite the fact that its disadvantages also seem to be well acknowledged in the company. Pasi Tonteri argued that e-mail is a difficult channel because there are always great risks for misunderstandings. He commented on that the risk exists even in communication between the persons sharing the same mother tongue and therefore the risk is even bigger in cross-cultural communications. Problems related to e-mails could also been seen in the survey that showed that directing e-mails to the correct persons is not so easy. As one Finnish respondent stated:

"E-mails need not to be sent only because some things are nice to know."

The respondent is clearly getting too much useless information in her/his work. Still, there are also opposite problems with the amount of e-mail. Another Finnish respondent in fact was willing to receive even more e-mail at her/his work and suggested that:

"Enhancements (for knowledge transfer practices) can be made for example by informing employees of common issues and works/tasks by e-mail"

The importance of e-mail in daily knowledge transfer has several advantages because it is a fast channel and suits well for transferring knowledge that it is in easily understandable form. However, it was stated in the literature that e-mail and other formal communication channels have a disadvantage that they do not always allow interpersonal interaction and without interpersonal interaction there is no possibility to create in new knowledge in connection of a transfer (Mäkelä 2006, 88). Therefore, e-mails may not always be the optimal channel for knowledge transfers that include more complicated knowledge or in cases where a risk for misunderstanding is large.

After e-mail the most important channels were telephone, corridor discussions and meetings. They are all channels where personal interaction is possible. The role of meetings as a knowledge transfer channel at Janssen-Cilag Nordic is very interesting. The company organizes joint meetings twice a year: these are Nordic-level meetings that often take place at summertime and at wintertime, for example in January and August. The meeting itself lasts for several days and different departments participate in the meetings for different times. The structure of the meetings may be, for example, that sales and marketing departments spend 3 to 4 days at the meeting and IT, Medical affairs and Research & Development departments only participate in part of the meetings – this naturally depends on the agenda of the meeting. However, the idea is that there is one whole day and one whole evening when all the employees at Janssen-Cilag Nordic participate there and then have an opportunity to meet their colleagues face-to-face.

Another opportunity to meet foreign colleagues is in connection with the board-level meetings. These meetings take place once a month in different countries. If the meeting is held for example in Finland, there will be a dinner one evening before the meeting. Personnel from the concerned department, for example, CNS department (Janssen-Cilag's business unit whose therapy area is the central nervous system) are invited for that dinner and there the employees have an opportunity to impact on the issues and also to meet their colleagues.

The possibility to meet the colleagues every now and then explains also the high level of agreement with the statement of whether the employee had personally met most of his/her foreign colleagues. Those who have not met their colleagues are probably those employees who have just started working in the company. Pasi Tonteri also commented on that by stating that also the foreign colleagues may have just started at the company. The results are presented in the figure 11 below.

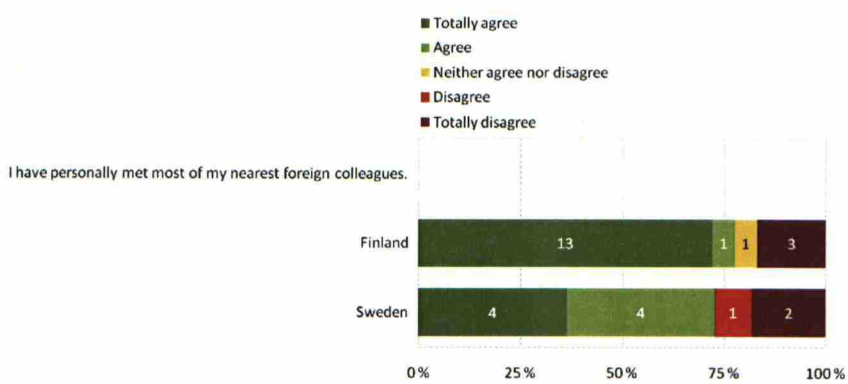

Figure 11: The number of respondents that have personally met most of their nearest foreign colleagues

The importance of Intranet divided the opinions in both countries. Other employees seemed to use it actively and others did not find it at all important. It was interesting that the answers from the interviews provide somewhat differing opinions. Pernilla Klöfver from Janssen-Cilag Sweden found Intranet very useful and stated:

> *"Intranet is good to have. There is on-going development and we have really been working on it. I would say that it is an optimal channel"*

Also two Swedish employees who participated in the survey saw many possibilities in the company's Intranet. They stated that:

> *"Intranet should be developed so that it could become a natural place to share information; that is how we could diminish e-mail and document handling".*

> *"We should utilize Intranet more. You could put there "team maps" instead of those e-rooms that are difficult to navigate"*

Another interviewee Pasi Tonteri stated that there is a lot of information on the Intranet, but did not see it as a problem-free channel in the company. He was still unconvinced whether people are used to look for information there:

> *"There are sometimes criticisms that "Why has this not been told to us?". Then we answer it: "We have informed you (the employees) about this. It has been in the Intranet already for three weeks."*

According to Pasi Tonteri, the attitudes of Finnish employees towards Intranet are not surprising. Before the common Nordic-level Intranet, Finland and Sweden had their own local Intranets. They contained a lot of local information and the employees were used to searching information from there. The common Intranet contains a lot of information that does not concern the local employees and the focus is more on the Nordic-level issues. Some of the issues there are also in English. Therefore, he thinks that some of the employees may have a feeling that Intranet is not so optimal a channel anymore because it also contains a lot of information that is useless for single employees.

As a conclusion of the discussed knowledge transfer channels it can be stated that there were clearly cross-country differences in the attitudes towards different knowledge transfer channels. The Swedish employees seem to prefer more interactive channels whereas the Finns prefer e-mail more. Pasi Tonteri also commented that the business culture in Janssen-Cilag AB is more open to discussion than the Finnish business culture.

The cultural differences are also reflected in the practices used at local subsidiaries. Pasi Tonteri mentioned that they have a morning meeting in Finland once a month where they discuss the current issues in the company. In addition, they have two days a year, one in summer and other in winter, when the whole company in Finland has a joint meeting. Every department prepares a 45-minute long presentation of the current issues in their department. For comparison in Sweden, they have a weekly 15-minute coffee break at Fridays where everyone from different departments can meet each other and share information. Pernilla Klöfver also mentioned Monday-breakfasts where the employees have an opportunity to get coffee and a sandwich and change a few words with each other.

These practices also support the earlier made conclusion that the Swedish business culture prefers more discussion than the Finnish business culture. Based on the analysis, it can also been seen that compromises, willingness to consult and participative decision-making are part of a Swedish business culture in Janssen-Cilag. When reflected to the literature, it can be concluded that these features refer to small power distance and femininity in Swedish business culture (Lucas 2006, 270-277). In Finland the knowledge transfer practices seem to be more organized and in that sense more autocratic than in Sweden. According to Lucas (2006, 266-267) these kinds of differences demand that the headquarters put emphasis on the timing and conditions of knowledge transfer practices in their subsidiaries (idib, 270-277).

Next, the evaluation and efficiency of knowledge transfer practices in Janssen-Cilag Nordic is discussed.

Efficiency of knowledge transfer practices

The decision about evaluation measures of knowledge transfer practices needs to be made at the corporate level of an MNC so that the management is aware of what practices are most efficient for the knowledge transfer purposes in their company. The efficiency of knowledge transfer in Janssen-Cilag Nordic is evaluated once a year. The main method for this evaluation is the so-called Credo-survey. The concept *Credo* refers to a statement or action principle that defines the responsibilities of Janssen-Cilag for its customers, employees, suppliers, society and other stakeholders and therefore it guides all actions in a company. The Credo-survey covers a lot of issues and Pernilla Klöfver described its contents as follows:

> *"It covers almost everything from ethical issues to motivational issues, such as how do you feel about your daily work, boss etc. Effectiveness of communication or knowledge transfer is one issue."*

Both local issues and Nordic-level issues are dealt with there, and the survey is for all employees worldwide. The survey results are really appreciated by the management of the company and according to Pernilla Klöfver:

> *"If something concerning reveals, the company takes action on that."*

The survey seems to be effective way to measure and evaluate the success of knowledge transfer. Still, the evaluation of the practices is not totally straightforward. Pasi Tonteri mentioned that single knowledge transfer issues cannot be measured but an analysis has to be made at a more general level, and this requires also a long-run perspective. His statement is in line with the discussion in the literature where it was stated that measurement of knowledge transfer practices is very challenging but also very important (Björkman et al. 2004, 452).

The effectiveness of knowledge transfer practices at Janssen-Cilag Nordic was examined with seven statements in the survey. They are listed according to the degree of agreement of employees to the statements. The statement that the employees were mostly in the same opinion is at the top of the list.

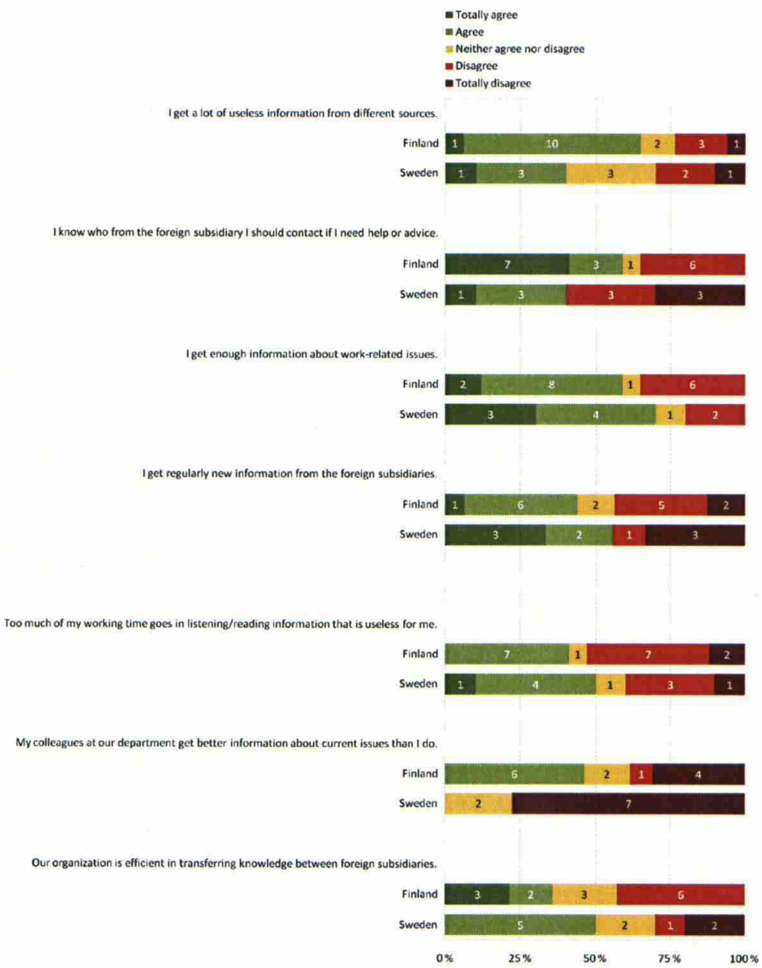

Figure 12: Effectiveness of knowledge transfer practices

According to the results, there seems to be some problems with knowledge transfer issues in Janssen-Cilag Nordic. Many employees feel that they get a lot of useless information in their work but also that they do not get enough information about work-related issues. This is a finding that was already seen in the section where the difficulties related to e-mails were discussed. There were also difficulties in foreign contacts because nearly half of the respondents in both countries admitted that they do not know whom they should contact in the foreign office if they need help or advice. Informing the employees of the organizational structure might be one solution to that. A Finnish respondent namely stated in an open question that:

> *"We should have better orientation to the organization, its work and action principles"*

The fourth and fifth statements divided the opinions both among Finnish and Swedish employees. In these, the issue was do the employees get regularly new information from the foreign subsidiaries and do the employees feel that too much of their working time goes in listening/reading information that is useless for them. Especially the former statement refers again to the problem of targeting information to the right employees.

A very interesting finding in the survey was discovered when the employees were asked whether their colleagues get better information about current issues than they do. In Sweden this does not seem to happen, but in Finland many felt that it actually happens. Some additional evidence of inequality reflected also in the open questions where a Finnish respondent stated the problem more accurately:

> *"Knowledge related to the business unit is not distributed equally to everyone."*

Based on the discussion above, the results of the last statement in the figure are not surprising. According to it, employees have different opinions whether their organization is efficient in knowledge transfer or not. Clearly, the current knowledge transfer procedures are suitable for some of the employees but others would need some improvements.

Lastly, the evolution of knowledge transfer practices at Janssen-Cilag Nordic is discussed. During the years when Pasi Tonteri and Pernilla Klöfver have been working at Janssen-Cilag, 5 and 10 years, some evolution in knowledge transfer practices can be seen. For example, Intranet has diminished the amount of e-mail in a company. There are also more telephone conferences nowadays that according to Pasi Tonteri has also increased the willingness to ask for feedback more often. Pernilla Klöfver adds that nowadays knowledge transfer is more regular but demands less travelling. Benefits and costs issues were not discussed in the interview but one could conclude that certain costs must have come down when the amount of company visits has decreased. It would have been interesting to find out what are the opportunity costs for decreased amount of visits as this decreases also a number of face-to-face contacts and informal discussions. Overall, the effect of business region Nordic on knowledge transfer issues is seen positive, as Pasi Tonteri concludes:

> *"I believe that the new structure, Nordic, has improved the level of knowledge transfer."*

It can be concluded that knowledge transfer issues are valued at Janssen-Cilag Nordic and that people and the corporation level are committed to it. Still, certain challenges and problems need to be considered and there are possible areas of improvement. Next we will look at knowledge transfer issues at a subsidiary level to see whether there is some issues that either hinder or facilitate daily knowledge transfer at that level.

4.3 Subsidiary approaches to knowledge transfer

In this section the subsidiary approach to knowledge transfer is discussed. The role of status and commitment to Nordic region and the impact of dual role of managers are examined.

The employees were asked whether they believe that foreign subsidiaries have as valuable information as their own subsidiary. One respondent did not comment on the statement but all other respondents (altogether 27) either agreed or totally agreed with this statement. When reflected to the literature, this attitude seems to be an ideal starting point for the knowledge transfer, because information generated in one subsidiary is valued by other subsidiaries and therefore there are no problems caused by low status of a subsidiary and low appreciation of their knowledge and practices (Gupta & Govindarajan 2000, 480). Also a careful conclusion can be drawn that there does not seem to be not-invented-here syndrome in Janssen-Cilag Nordic because the employees feel that the other subsidiaries can have as useful and valuable practices as their own subsidiary.

It was asked if the employee feels to be an employee of Janssen-Cilag Nordic rather than just of the subsidiary she/he is working at. This divided opinions both in Finland and Sweden. Partly this may be because Janssen-Cilag Nordic is rather new organization, only 1,5 years old and therefore employees have not had enough time to identify in it. Partly this may be because most of the respondents have been working in Janssen-Cilag over four years and therefore it may take a longer time from them to identify into new organizational structure. Still, almost half of the respondent felt that they belong to Janssen-Cilag Nordic, which reflects certain level of commitment to it. The figure 13 of these two statements is presented below.

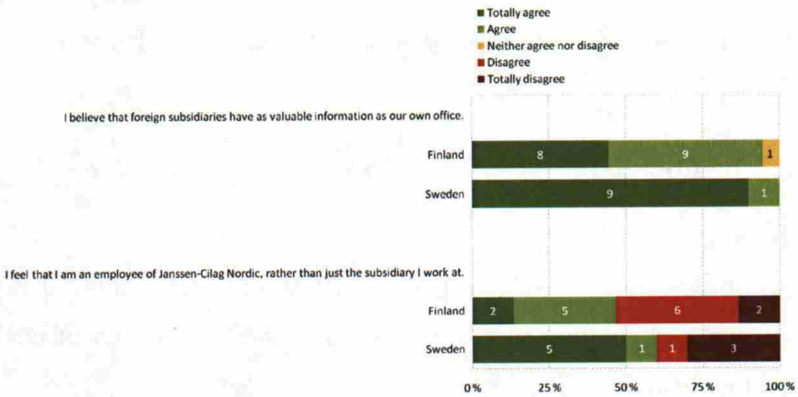

Figure 13: Status and commitment to Janssen-Cilag Nordic

The units of the analysis in this study were the subsidiaries of Janssen-Cilag that are located in Finland and in Sweden. The Nordic business region does not have a regional headquarters but according to Pernilla Klöfver and Pasi Tonteri the headquarters is still "*in practice*" in Sweden but "*in principle, we do not have a Nordic headquarters*". Also Katarina Hamnström from Janssen-Cilag AB Sweden emphasised this issue. Based on these comments it was interesting to notice that Sweden did not seem to have a superior role in the eyes of employees.

The dual role of managers was discussed in the literature and it was described as a contradiction to comply with the requests of the headquarters and willingness to make local adaptations into them (Kostova & Roth 2002, 215-216). When Pasi Tonteri was asked about this, he explained that there has been a tendency to harmonise certain practices in Janssen-Cilag Nordic but that the experience has shown that certain practices or issues are more efficient when some adaptation is made into them. If some issues are planned to be harmonized within the region but a manager is unwilling to execute them, there is often a possibility for further discussion. Therefore, Pasi Tonteri does not see the dual role of a manager within Janssen-Cilag Nordic problematic.

Next the interpersonal relationships of the employees will be discussed.

4.4 Interpersonal level approaches to knowledge transfer

In this section, interpersonal knowledge transfer level and related issues will be discussed. The issues in this section include issues of mutual relationships, trust, language, motivation, and absorptive capacity.

The employees were asked is it more often they or their foreign colleague that initiates a contact in daily work. According to the survey results, the Finns are more often in a role of knowledge receiver than the Swedish employees. This makes the earlier made conclusion a bit stronger as it supports the finding that Swedish employees may hear about new issues before the Finns do. Therefore, the effect of the de facto Nordic headquarters can be seen also in this issue. Still, these results need to be evaluated with care. Because there was not an alternative "I and the colleague initiate the contact equally often", it may be that some of the survey respondents have chosen their answer randomly. The results of the questions are presented in figure 14 below.

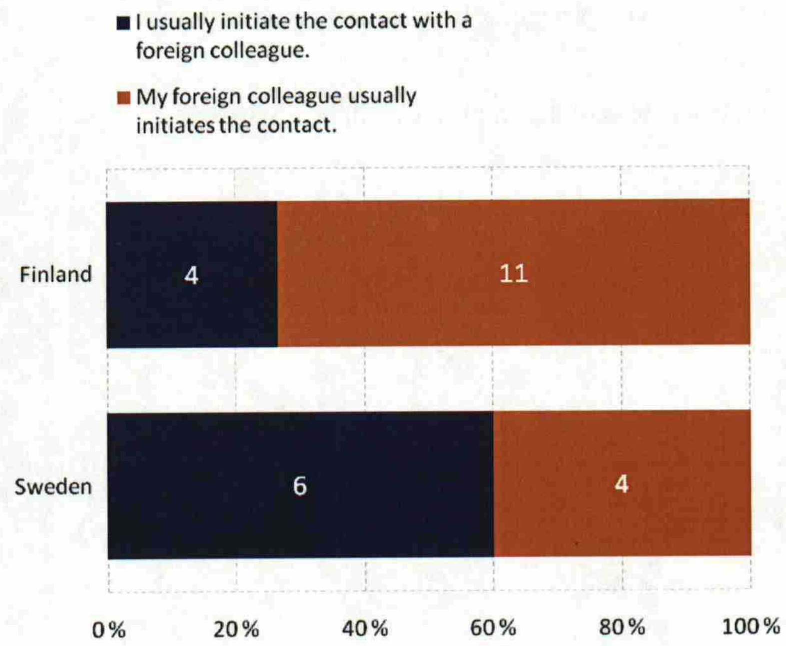

Figure 14: The initiators of foreign contacts

The reason for choosing whom to initiate contact with was also asked. The four possible options were given, but none of the respondents chosen the possibility "*I have better language skills than my colleagues*". Six employees answered that the colleague contacts them because she/he colleague knows them better than the others. This was an interesting result as the other options for the question were that because they have the responsibility for the kinds of issues and because they can best solve the problem. This finding was also supported in the literature where it was stated that mutual relationships could facilitate knowledge transfer (Kostova 1999, 319). The results are presented in a figure 15 below.

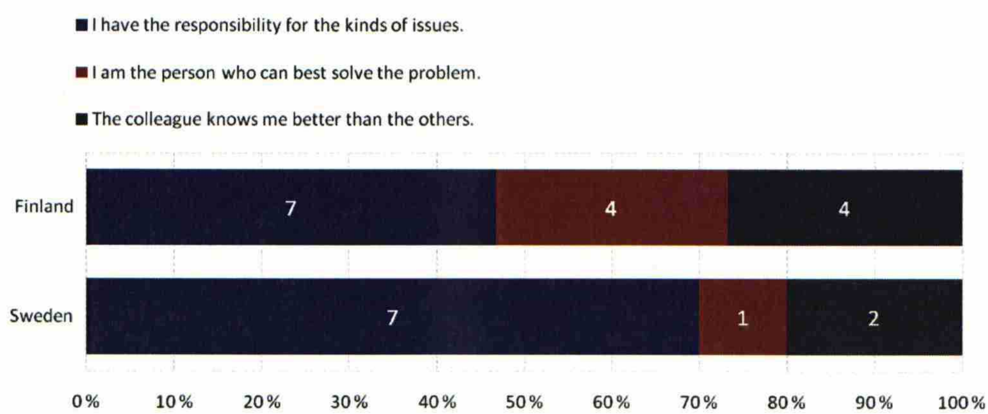

Figure 15: The most common reasons foreign colleagues initiate contact with the respondent

Mutual relationships of the employees were examined also with other statements. Almost every respondent stated that they trust that their colleague keeps her/his promises. Many respondents also agreed that they have close relationships with their foreign colleagues and that they rather ask for help from the foreign colleague than search it from the Intranet. An interesting result was that four Swedish employees and two Finnish employees preferred Intranet rather than personal contact. This finding supports also the earlier made conclusion that Swedish employees seem to find Intranet more useful than their Finnish colleagues. The attitudes are presented in a figure 16 below.

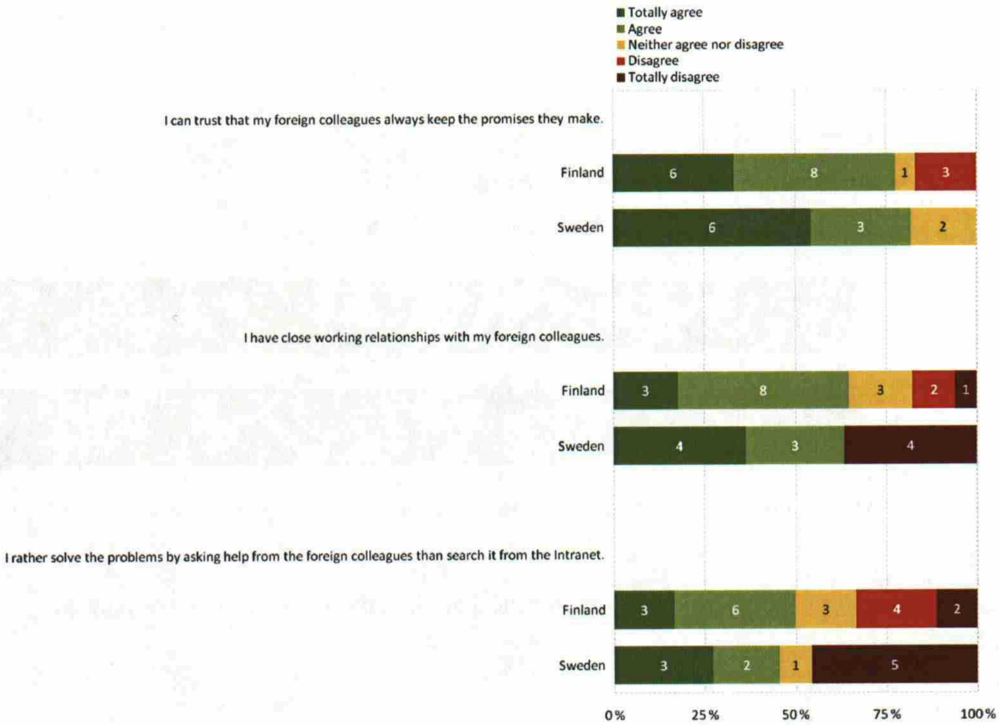

Figure 16: Mutual relationships I

Mutual relationships of the employees are important knowledge transfer facilitators because they can encourage the employees to do their best to cooperate with their colleagues. This was seen also in the survey where the employees in both countries were agreeing that they do their best to help their colleagues in their work-related problems and if they find out new information in their work, they also inform their colleagues of them. The respondents also believe that their colleagues do their best to help them in their work-related problems. The results are presented in the figure 17 below.

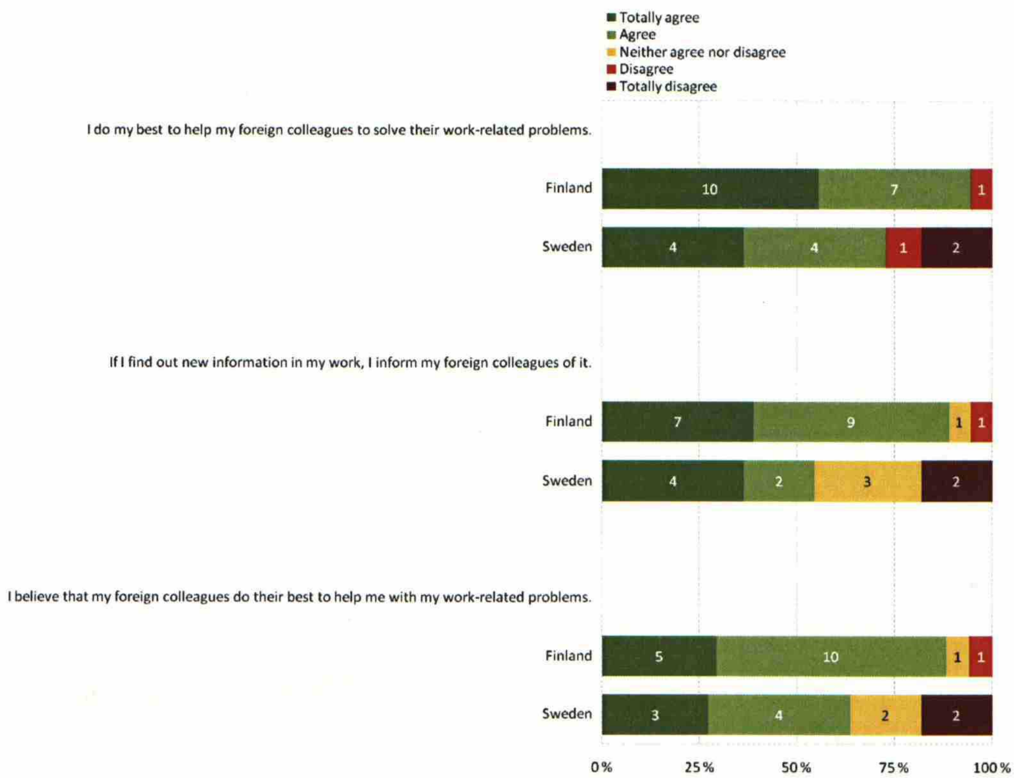

Figure 17: Mutual relationships II

Language

Language issues were already shortly discussed in the beginning of the analysis. As was mentioned, the corporate language of Janssen-Cilag Nordic is English. According to the survey, it is also the most often used language in cross-cultural communication within the corporation. The survey results are presented in the figure 18 below.

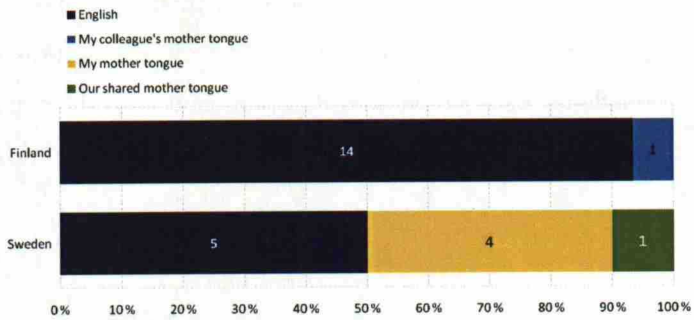

Figure 18: The most often used language in communications with foreign colleagues

Language does not seem to be a problem in the communication between the subsidiaries because the employees understand the professional language that their colleagues use in their work, only some of them had had misunderstandings because of language problems and colleagues did not seem to be in unequal positions due to language issues. The results are presented in a figure 19 below.

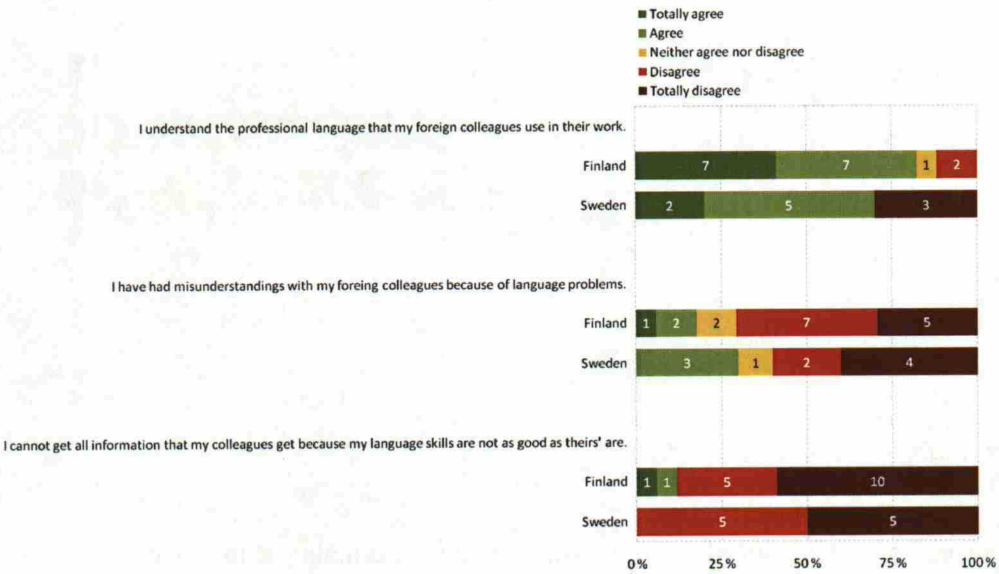

Figure 19: Language issues

Despite that the corporate language in Janssen-Cilag Nordic is English, not everyone in the company is fluent in it. For this survey, the respondents were limited to employees who have contacts with the foreign subsidiaries and these employees probably have better language skills than the employees in the company in average. The weak English skills of some of the employees were discussed already earlier when the problems related to trainings that are held in English were discussed.

Absorptive capacity

The last issue in this section deals with the level of absorptive capacity of the employees in Janssen-Cilag Nordic. The results show that there is lot of variation in these results. They are presented in a figure 20 below.

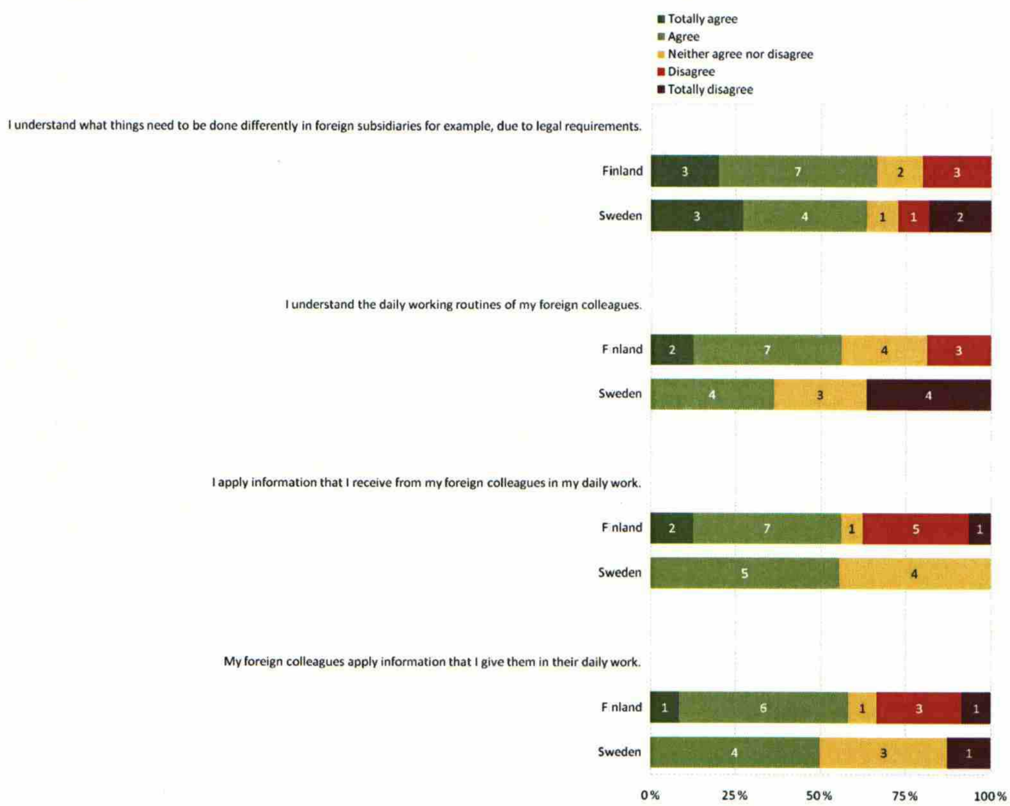

Figure 20: Absorptive capacity

According to Pasi Tonteri and Pernilla Klöfver, the employees are not so familiar with the working practices and legal requirements of their foreign colleagues because of a rather new organizational structure. This can also be seen in the survey results. However, the interviewees also state that every country needs to follow their rules and restrictions concerning the pharmaceutical industry and therefore it is not necessary for the daily work to know the practices of other countries. Still, the last two statements that deal with the application of new knowledge are quite alarming when reflected to the literature. Several respondents cannot answer do they or their colleagues apply new knowledge in their work and some of the respondents disagree or even totally disagree with the statements concerning the application of new knowledge. According to Gupta & Govindarajan (2000), this is the most critical stage of the knowledge transfer (ibid, 490). This is because unless the recipient utilizes the transferred knowledge, the whole transfer effort has been useless.

Next, the effect of knowledge characteristics on the transfer process will be discussed.

4.5 Role of knowledge characteristics

Tacit knowledge makes the knowledge transfer challenging because it is so context-related (Lord & Ranft 2000, 577). Also in Janssen-Cilag Nordic, there is a lot of tacit knowledge that is not documented and resides only in the heads of the employees. Some of this knowledge is also very difficult to transfer for the foreign colleagues because it would demand a personal contact. The results are presented in the figure 21 below.

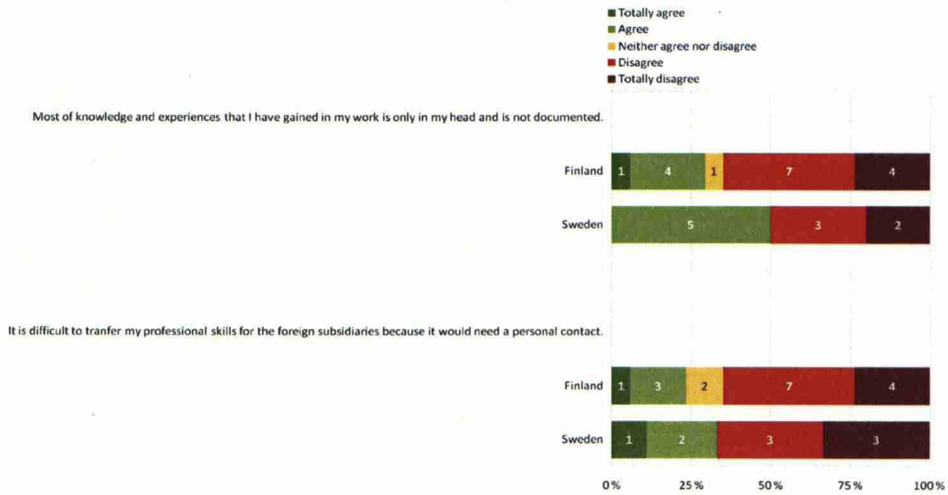

Figure 21: Nature of knowledge

The problems related to the wrong location of knowledge were also discussed with Pasi Tonteri. He concluded that IT has made it possible to save large amounts of data and therefore also useless and old information is saved. Partly this is done because of the legal restrictions but sometimes data should be better filed. He made an interesting comment on that stating:

> *"It is often argued that there is never too much information, but it is just located in the wrong place or is distributed asymmetrically"*

This comment summarizes very well the results of the analysis. It came evident that knowledge transfer issues have been considered at Janssen-Cilag and that people are committed to them. Still, some areas of improvement and challenging issues could be found. Next, the knowledge definition and related challenges will be analysed.

In the beginning of this study it was stated the knowledge would be defined more clearly after the data analysis. Based on the discussion in this chapter, the definition of knowledge in Janssen-Cilag Nordic and the related challenges can be presented with the help of the following table.

	Know-what	Know-for whom	Know-how	Know-when	Know-why
Employee perspective at Janssen-Cilag Nordic	New information, skills and experiences. Documents and other explicit forms of knowledge. Also tacit knowledge, such as experiences.	Domestic and foreign colleagues.	Through various knowledge transfer channels. With the help of adequate language skills.	When one finds out new things at work. As soon as possible. Also in informal occasions such as corridor discussions, and telephone conversations.	Because everyone has a personal responsibility for knowledge transfer. It is well understood that a colleague may also need new knowledge at her/his work.
Challenges at Janssen-Cilag Nordic	How to recognize and transfer tacit knowledge more efficiently?	How to inform everyone whom the information may concern? The interplay between lack of knowledge vs. useless and time-taking knowledge.	How to choose the optimal channel for every purpose? It depends on the knowledge receiver, his/her absorptive capacity and language skills. Also the knowledge type i.e. tacit and explicit knowledge effects on the channel choice.	How to share information at the right and same time for everyone whom it concerns? The employees feel they are in equal positions if everyone gets the information at the same time. There will probably be fewer speculations in the organization when this challenge is overcome.	How to inform the new employees of knowledge transfer practices and also get them committed to it?

Table 3: Summary of knowledge characteristics and related challenges in Janssen-Cilag Nordic

The table consist of five knowledge types. Four of them are based on the study by Antal (2000) and they include *knowing-what, knowing-how, knowing-when and knowing-why* (ibid, 39). The fifth knowledge type *know-for whom* stems from the analysis of knowledge transfer challenges in Janssen-Cilag Nordic and is based on the conclusion made in this study. Next, those knowledge types and related challenges will be shortly discussed.

Know-what was clearly understood at Janssen-Cilag Nordic, because the survey participants agreed that if they find out new information in their work, they inform also their colleagues of it. However, the results of the survey revealed that a lot of knowledge in Janssen-Cilag Nordic exists in tacit form and therefore a challenge lies in recognising that knowledge and its potential value in a company. This is an important skill because the competitive advantage potential lies in the skill to transfer tacit knowledge (Nonaka 1994, 16).

The second knowledge column is called *know-for whom*. The employees in Janssen-Cilag Nordic were really committed to transfer knowledge for their domestic and foreign colleagues but this knowledge type was still setting some challenges for the company. The problematic issue seems to be finding the balance between lack of information and large amounts of useless information. Learning to target knowledge better for employees who need it makes knowledge transfer in Janssen-Cilag Nordic more efficient.

The third knowledge type is *know-how*. The employees seemed to be quite skilled in transferring knowledge and a lot of channels were used in daily work. Language skills were also at an appropriate level that can facilitate transfers. Still, some challenges can also be seen in this knowledge type. Firstly, different employees seem to prefer different knowledge transfer channels and it was concluded that the choice of transfer channel depends also on the type of knowledge. Also the absorptive capacity and language skills of the receiver have impact on the choice of the most suitable channel. Simple knowledge can maybe be sent by e-mail but as the employees admitted in the survey, some of knowledge cannot be transferred successfully without a personal contact. Therefore, it can be concluded that the challenge lies in choosing the proper knowledge transfer channel for each knowledge type and receiver.

Knowing-when was very well understood among the employees in Janssen-Cilag Nordic. According the survey results, most of the employees saw it as their personal responsibility to transfer new knowledge for their colleagues if they find it out in their daily work. Still, sharing the information at the right but also same time seemed to be challenging and had caused feelings that one is in an unequal position compared to the colleagues even in the same department. Learning the timing issues will thus also improve the atmosphere in the company. This will probably also decrease the amount of rumours and gossips and speculations.

The final knowledge type is *know-why*. This seemed to be understood as "*because we all are responsible for it*" at Janssen-Cilag Nordic. Employees had understood the importance of knowledge transfer in their company and they were also committed to it. The challenge in this issue is to transfer these attitudes and skills also for the new employees in a company.

The usefulness of the table can be justified by the comment of Antal who states:

> *"It is in the synthesis of the types of knowledge that the significance often lies".* (Antal 2000, 39)

Therefore, concentrating only on one challenge presented in the table does not lead to more effective knowledge transfer in Janssen-Cilag Nordic but all of the challenges should be considered. In addition, the actions need to cover the corporate, subsidiary and interpersonal levels as was discussed in the analysis.

5 CONCLUSIONS

This concluding chapter will present the main findings and also the revised framework of this study. The chapter will end with managerial implications and suggestions for further research.

5.1 Main findings

The purpose of this study was to examine inter-unit knowledge transfer in a multinational corporation. The issue was seen interesting because at best the efficient internal knowledge transfer in an MNC can provide a company with a sustainable competitive advantage. As the title of this study refers, there are many pitfalls in the knowledge transfer processes in MNCs and therefore the benefits of efficient knowledge transfer are not always achieved. However, the problematic issues can also be turned into possibilities if the management is aware of the proper strategies and tools that can facilitate knowledge transfer processes.

In this section the research questions will be answered and the revised framework of the study is presented. The research questions of this study were following:

1) *What are the key issues in the inter-unit knowledge transfer process of an MNC?*
2) *What are the main facilitators of knowledge transfer in an MNC?*
3) *What knowledge transfer practices are used in Janssen-Cilag Nordic?*

The key issues in knowledge transfer processes in an MNC were discussed in three levels of analysis – corporate, subsidiary and interpersonal level. Despite that those levels were discussed one by one in this study, it is important to bear in mind that these levels are highly interrelated. Actually, the challenges in managing knowledge transfer processes in MNCs lies in understanding this *interrelatedness* and its effects on the knowledge transfer processes and on the organizational atmosphere.

Every knowledge transfer process is unique and occurs in certain contexts. There are three kinds of contexts- social, organizational and relational context- that each has impact on the conditions for knowledge transfer (Kostova 1999, 313). In MNCs the effect of context is especially important because the employees have different backgrounds, nationalities and cultures that make the knowledge transfer more challenging than in a case of domestic business units. Because of the importance of context on knowledge transfer process, context can be understood as a background and therefore also a starting point for knowledge transfer processes in MNCs.

The management at the corporate level of MNCs has an important role as a planner and executer of knowledge transfer strategies. They should understand the different contexts and plan the knowledge transfer practices in a way to they serve the demands of these contexts. Knowledge transfer should be perceived as a strategic priority in a company and the planned strategies and practices should be communicated to all organizational levels. Responsibilities should be shared for certain departments, for example HR or IT departments and also the employees should get committed to the knowledge transfer. As facilitators at this level it was suggested for the managers to include knowledge transfer objectives for the personal development plans of the employees. Also richness of knowledge transfer channels, both formal and informal channels was seen to facilitate the knowledge transfer processes. The greatest challenges at this stage were to develop an evaluation system to investigate the effectiveness of knowledge transfer practices and to create an organization culture that supports knowledge transfer, change and continuous learning. It can be concluded that these actions demand commitment from the management. A lot of work needs to be done but it is also important to understand that the management is not alone responsible for the knowledge transfer issues in MNCs.

The second analysis level was the subsidiary level. This level is unique for the knowledge transfer processes occurring in multinational corporations and again highlights the importance of understanding the context of other subsidiaries. The mutual relationships between the subsidiaries and their managers should be fostered. At this level the problematic issues can be the different loyalties of the subsidiary managers.

An example of this is willingness to aim for the own or subsidiary's goals instead of the goals that would benefit the MNC as a whole. This is called institutional duality. Other subsidiaries can also have doubts towards other subsidiaries. Therefore they do not believe them to have valuable information and they do not want to accept the practices developed at these subsidiaries. This is called a not-invented-syndrome. Also a lack of motivation or jealousy towards other subsidiaries can make knowledge transfer difficult or even hinder it. The subsidiaries may see the other subsidiaries more like their competitors and therefore they do not want to use their own resources and time for helping them. The controversy between competition and need for cooperation was referred to as coopetition in the literature. It was suggested that the subsidiary managers should be motivated for knowledge transfer by for example offering rewards for meeting the knowledge transfer objectives set for their subsidiary. The most important facilitator in subsidiary level was to foster the relationships between the managers and their mutual relationships.

The lowest level was interpersonal level that is a very critical level in knowledge transfer processes in MNCs. Both the provider of knowledge and the receiver of knowledge are in important positions here. Therefore their mutual relationships should be fostered. It was important that the company offers new knowledge, adequate language skills, cultural training and incentives for knowledge providers so that they can share their knowledge for other employees. Motivation is very important for initiating the knowledge transfers. The knowledge receivers should be provided adequate skills to receive and apply new knowledge their work. In other words, the company should take care that the level of absorptive capacity of their employees is adequate for understanding the new knowledge. Therefore training was seen as one important facilitator here.

Finally, the difficulties related to transfer of tacit, i.e. context-specific knowledge was discussed. It was seen important that the companies would learn how to recognize and better utilize that knowledge in their companies.

The above-discussed issues were answers to the first and the second research question of the study. These findings are presented in the figure 22 below. Some of the issues in the framework are marked with red color. They are findings from the data analysis of the study and will be discussed next.

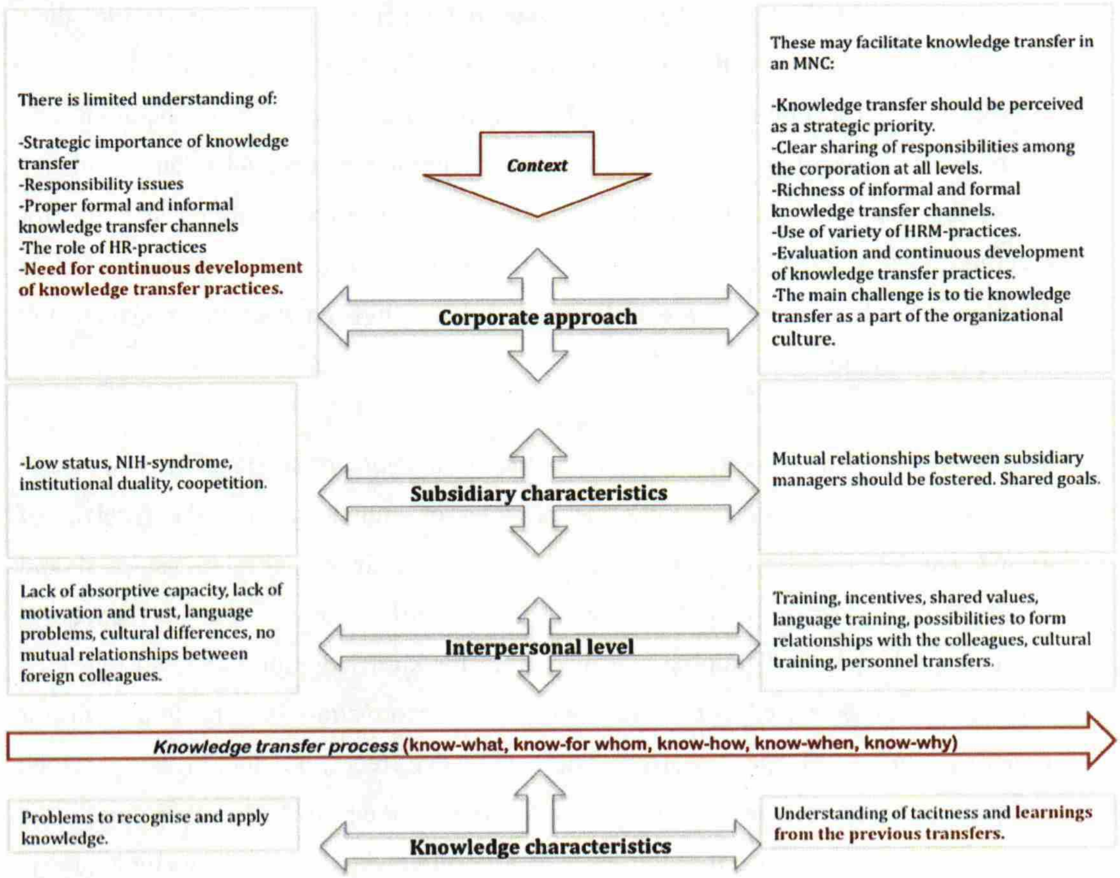

Figure 22: Revised framework for the study

The third research question of the study was asking what knowledge transfer practices were used in Janssen-Cilag Nordic. Those will be next presented and analyzed.

There were a variety of knowledge transfer channels and practices in Janssen-Cilag Nordic. Those included e-mail, telephone discussions, corridor discussions and Intranet.

Also meetings and training were important and much used channels in the case company. Especially the possibilities to meet the foreign colleagues personally seemed to have positive effect on knowledge transfer processes. Despite that there were a variety of knowledge transfer channels in a company, their use and effectiveness in different situations was challenging. Different employees preferred different channels and it was also admitted by the employees who participated in the survey that different types of knowledge demand different channels. In some occasions, simple information seemed to be transferred with the same practices than a more complicated knowledge. E-mails were a good example of the channel choice problem. One employee stated in the survey that it is stressful to get a lot of e-mail when one does not ever know does it contain information that requires mediate actions from him/her or is the e-mail sent for him/her only because someone has thought that "*this is nice to know*". This was illustrated as *know-how* in the figure 22.

The channels choice problems included also difficulties in targeting the knowledge for right employees. Based on the survey results, the wrongly targeted information may let the employees into unequal positions where the others get too much information and others too less. This is referred to as *know-for whom* in the figure. Also timing of knowledge transfer seemed to have a similar effect – if the employees received the information later than their colleagues, it caused a feeling of unequal position compared to the colleagues. This refers to as *know-when* in the figure. These challenges should be considered with care because they are so closely linked to the organizational atmosphere. Clear and continuously up-dated organizational structures in the Intranet-pages of the company may be helpful on tackling this problem. Also aims for sharing the information at the same time for everyone is very important.

The fourth challenge related to channel choices was to recognize and learn to transfer tacit knowledge more effectively. This is referred to as *knowing-what* in figure 22. As the employees stated in the survey, this is not a simple task because certain knowledge cannot be efficiently transferred without a personal contact. Arranging these personal contacts with the foreign colleagues is not cheap but as was stated in the literature, transferring tacit knowledge can at best lead to competitive advantage potential and therefore is very valuable for companies. Therefore the summer and winter meeting at Janssen-Cilag Nordic may be very valuable but at the same also a bit costly knowledge transfer channels.

There is also a concept *know-why* in the framework. It seemed be understood very well in Janssen-Cilag Nordic. The employees were very committed to knowledge transfer, trusted their colleagues and helped them when they needed help. There did not seem to be severe language problems and also the mutual relationships between subsidiaries were good. There were no signs of status problems or "coopetion". Neither was the dual role of managers seen controversial. The importance of knowledge transfer was also understood at the corporate level of Janssen-Cilag that was willing to develop the practices and evaluate their effectiveness yearly.

When linking the literature and data analysis together, there is still a lot of room for speculation. It was seen that the contents of information, the knowledge receiver and his/her absorptive capacity and the knowledge transfer channel should be fitted for each purpose. However, the advice of choosing the optimal channel, evaluating the level of absorptive capacity of the receiver and the difficulty to apply the new knowledge by the receiver is very difficult. Still, succeeding in this stage of knowledge transfer is the most critical stage of the knowledge transfer processes. It was stated in the literature that only application and internalization of new knowledge into the receiver's organization are signs of the successful knowledge transfer processes.

Thus, it could be concluded that the most essential point when striving towards efficient knowledge transfer processes is to learn from the previous transfers and to continuously develop the practices. These issues are also marked in the figure 22 with red color. It seems to be that the issues of *"right contents of a message"*, *"right timing"* and *"enough information"* can not be known until the companies have some experiences of knowledge transfer processes. Therefore a long time perspective is needed.

Another and maybe even surprising conclusion of the study was the interrelatedness of knowledge transfer and the atmosphere of an organization. The unequally informed employees may not feel comfortable in the organizations and there can be a lot rumors and speculations if the organization does not have open communications culture. Also the degree to which organizational values such as trust and motivation to help the colleagues are shared will have positive effect on the atmosphere. In light of this finding it seems very reasonable to state that having knowledge transfer a strategic priority in an MNC is very important. Therefore effective inter-unit knowledge transfer processes in an MNC can offer a lot of possibilities and advantages for a company.

5.2 Managerial implications

Based on the study findings it can be stated the knowledge transfer should be put as a strategic priority in MNCs. A valuable starting point for strategy formulation is to measure the effectiveness of current knowledge transfer practices and channels.

The overall difficulty in knowledge transfer processes in MNCs seems to be in understanding the processes holistically. The management of the MNCs should be able to formulate knowledge transfer strategies and then take them through the subsidiary level to the interpersonal level. The attitudes of management and the employees of MNCs are in the key role there. But in addition to committed and motivated personnel, also a supporting organizational structure is needed. As Minbaeva (2005) puts it:

> *"Even subsidiaries with highly-skilled and motivated employees will not be effective in knowledge transfer if subsidiaries are unsuccessful in building the infrastructure of learning and supporting learning environment".* (Minbaeva 2005, 129).

Therefore the interplay between the levels is very important. Once the strategy and practices are developed, they should be communicated for the employees. Evaluation and gradual development of practices should be made in order to find the areas of improvement. As was discussed earlier, the efficient knowledge transfer can lead even to competitive advantage but even smaller enhancements in knowledge transfer practices, such as sharing the information at the same time for everyone can bring the MNC benefits in the forms of more satisfied employees.

5.3 Suggestions for further research

There are many interesting research paths for future research. First, it would be interesting to compare the different evaluation measures of knowledge transfer practices with each other. It would increase the understanding of directions for development of practices. Secondly, as the interpersonal level was seen critical in the knowledge transfer processes in MNCs it would be interesting to investigate the impact of gender at this level. Because it was seen that different contexts and cultures affect on the knowledge transfers, also gender might have impact on it. Thirdly, the impact of Intranet as a knowledge transfer channel would be interesting area for future research. Future studies would benefit from a holistic perspective on knowledge transfer issues because improving only single issues cannot enhance the effectiveness of knowledge transfer processes as much as holistic approach could.

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APPENDICES

Appendix 1

Kysely tiedon siirtämisestä Janssen-Cilag Nordicin eri konttoreiden välillä

Hei,

tervetuloa täyttämään kyselyä tiedon siirtoon liittyvistä asioista Janssen-Cilag Nordicin eri maiden konttoreiden välillä.

Kysely on anonyymi ja sen täyttämiseen kuluu n. 10-15 minuuttia.

Kysely on osa Helsingin kauppakorkeakouluun tekemääni pro gradu-tutkielmaa, jossa analysoidaan tiedon siirron haasteita monikansallisessa yrityksessä.

Kyselyyn liittyvissä asioissa voit ottaa minuun yhteyttä sähköpostilla paivi.thuneberg@student.hse.fi.

Ystävällisin terveisin,
Päivi Thuneberg

Millä osastolla Janssen-Cilag Oy:ssa työskentelet?

____

Kuinka kauan olet työskennellyt Janssen-Cilag Oy:ssa?

( ) Alle vuoden
( ) 1-3 vuotta
( ) Yli 4 vuotta

Sukupuolesi

( ) Nainen
( ) Mies

Äidinkielesi

( ) Suomi
( ) Ruotsi
( ) Jokin muu, mikä ____

Oletko samaa vai eri mieltä seuraavien väittämien kanssa?

	Täysin eri mieltä			En samaa enkä eri mieltä			Täysin samaa mieltä	En osaa sanoa
Olen tavannut useimmat lähimmät ulkomaalaiset kollegani henkilökohtaisesti.	( )	( )	( )	( )	( )	( )	( )	( )
Minulla on läheiset työsuhteet ulkomaalaisiin kollegoihini.	( )	( )	( )	( )	( )	( )	( )	( )
Teen parhaani auttaakseni ulkomaisia kollegoitani ratkaisemaan heidän työhönsä liittyviä ongelmia.	( )	( )	( )	( )	( )	( )	( )	( )
Uskon, että ulkomaalaiset kollegani tekevät parhaansa auttaakseen minua töihini liittyvissä asioissa.	( )	( )	( )	( )	( )	( )	( )	( )
Luotan, että ulkomaalaiset kollegani pitävät tekemänsä lupaukset.	( )	( )	( )	( )	( )	( )	( )	( )

Jos saan selville työhöni liittyvää informaatiota, kerron siitä myös ulkomaalaisille kollegoilleni.	( )	( )	( )	( )	( )	( )	( )	( )
Kysyn mieluummin apua ulkomaalaiselta kollegaltani kuin etsin tiedon Intranetistä.	( )	( )	( )	( )	( )	( )	( )	( )
Uskon, että ulkomaalaisilla konttoreilla on yhtä arvokasta informaatiota kuin meidän konttorillamme.	( )	( )	( )	( )	( )	( )	( )	( )

Oletko samaa vai eri mieltä seuraavien väittämien kanssa?

	Täysin eri mieltä			En samaa enkä eri mieltä			Täysin samaa mieltä	En osaa sanoa
Ymmärrän, mitä asioita ulkomaisilla konttoreilla tehdään eri tavoin kuin Suomessa esim. lakisäädösten vuoksi.	( )	( )	( )	( )	( )	( )	( )	( )
Ymmärrän ulkomaisten kollegoideni päivittäiset työrutiinit.	( )	( )	( )	( )	( )	( )	( )	( )

Sovellan ulkomaalaisilta kollegoilta saamaani tietoa päivittäisessä työssäni.	( )	( )	( )	( )	( )	( )	( )	( )
Ulkomaalaiset kollegani soveltavat minulta saamansa tietoa työssään.	( )	( )	( )	( )	( )	( )	( )	( )
On vaikeaa siirtää ammattitaitoani muiden maiden konttoreille, koska se vaatisi henkilökohtaista kontaktia.	( )	( )	( )	( )	( )	( )	( )	( )
Suurin osa työssäni saamastani tiedosta ja kokemuksesta on vain omassa päässäni eikä sitä ole dokumentoituna missään.	( )	( )	( )	( )	( )	( )	( )	( )

Oletko samaa vai eri mieltä seuraavien väittämien kanssa?

	Täysin eri mieltä			En samaa enkä eri mieltä			Täysin samaa mieltä	En osaa sanoa
Saan erilaisista lähteistä paljon itselleni hyödytöntä tietoa.	( )	( )	( )	( )	( )	( )	( )	( )
Työaikaani menee liikaa kuunnellessani/lukiessani tietoa, jolla ei ole mitään	( )	( )	( )	( )	( )	( )	( )	( )

merkitystä minulle.

On ajanhukkaa käyttää omaa työaikaansa ulkomaisten kollegoiden auttamiseen heidän työhönsä liittyvissä ongelmissaan.	( )	( )	( )	( )	( )	( )	( )	( )
Saan tarpeeksi tietoa työhöni liittyvistä asioista.	( )	( )	( )	( )	( )	( )	( )	( )
Minun oman osaston kollegani saavat parempaa tietoa ajankohtaisista asioista kuin minä.	( )	( )	( )	( )	( )	( )	( )	( )
Ymmärrän ulkomaisten kollegoideni käyttämää ammattikieltä.	( )	( )	( )	( )	( )	( )	( )	( )
Minulla ja kollegoillani on ollut väärinkäsityksiä/ymmärryksiä kieliesteiden takia.	( )	( )	( )	( )	( )	( )	( )	( )
En saa kaikkea samaa tietoa kuin kollegani, koska minulla ei ole yhtä hyvä kielitaito kuin heillä.	( )	( )	( )	( )	( )	( )	( )	( )
Saan säännöllisesti informaatiota ulkomaisilta konttoreilta.	( )	( )	( )	( )	( )	( )	( )	( )
Tiedän, keneen ulkomaisessa konttorissa minun pitäisi ottaa yhteyttä, jos tarvitsen apua tai neuvoja.	( )	( )	( )	( )	( )	( )	( )	( )

Oletko samaa vai eri mieltä seuraavien väittämien kanssa?

	Täysin eri mieltä			En samaa enkä eri mieltä			Täysin samaa mieltä	En osaa sanoa
Olen keskustellut tiedon siirtoon liittyvistä asioista ja käytännöistä esimieheni kanssa.	( )	( )	( )	( )	( )	( )	( )	( )
Työhöni kuuluu vaihtaa aktiivisesti tietoa kotimaan ja ulkomaan kollegoideni kanssa.	( )	( )	( )	( )	( )	( )	( )	( )
Organisaatiomme siirtää tehokkaasti tietoa eri maiden yksiköiden välillä.	( )	( )	( )	( )	( )	( )	( )	( )
Koen kuuluvani Janssen-Cilag Nordic:n enkä vain Janssen-Cilag Oy:n.	( )	( )	( )	( )	( )	( )	( )	( )

Kun olet yhteydessä ulkomaiseen konttoriin, otatko sinä vai kollega useammin yhteyttä?

( ) Minä otan useimmin yhteyttä kollegaan.
( ) Kollega ottaa useimmin yhteyttä minuun.

Miksi uskot, että ulkomainen kollega ottaa yhteyttä juuri sinuun? Valitse tärkein syy alla olevista vaihtoehdoista.

( ) Minulla on vastuu kyseisestä asiasta.
( ) Osaan parhaiten ratkaista ongelman.
( ) Kollega tuntee minut paremmin kuin muut.
( ) Minulla on parempi kielitaito kuin kollegoillani.

Millä kielellä asiotte useimmin ulkomaalaisten kollegoiden kanssa?

( ) Yhteisellä äidinkielellämme
( ) Minun äidinkielelläni
( ) Kollegani äidinkielellä
( ) Englannin kielellä

Kuinka tärkeänä informaation lähteenä työssäsi pidät seuraavia?

	Hyvin tärkeä	Tärkeä	Ei kovin tärkeä
Intranet	( )	( )	( )
Sähköposti	( )	( )	( )
Puhelin	( )	( )	( )
"Käytäväkeskustelut"	( )	( )	( )
Kokoukset	( )	( )	( )

Mikä näistä on sinulle tärkein tietolähde?

( ) Intranet
( ) Sähköposti
( ) Puhelin
( ) "Käytäväkeskustelut"
( ) Kokoukset

Onko tiedon siirto eri maidenne konttoreiden välillä organisoitu tehokkaasti? Voisiko asiaan tehdä jotain parannuksia?

Appendix 2

Undersökning om informationsbyte mellan olika kontor på Janssen-Cilag Nordic

Välkommen,

I den här undersökningen kommer jag att ställa frågor om informationsbyte mellan olika kontor på Janssen-Cilag Nordic.

Denna undersökning är anonym. Det tar ungefär 10-15 minuter att svara på frågorna.

Jag studerar på handelshögskolan i Helsingfors, Finland. Undersökningen är en del av mitt slutarbete som handlar om utmaningar i informationsbyte i ett globalt företag.

Om du har frågor om denna undersökning, du kan kontakta mig via e-mail: paivi.thuneberg@student.hse.fi.

Med vänlig hälsning,
Päivi Thuneberg

På vilken avdelning i Janssen-Cilag AB jobbar du?

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Hur länge har du jobbat på Janssen-Cilag AB?

( ) Mindre än 1 år
( ) 1-3 år
( ) Över 4 år

Är du

( ) Kvinna
( ) Man

Ditt modersmål

( ) Finska
( ) Svenska

( ) Övrigt, specificera ____________________

Är du av samma åsikt med följande påståenden?

	Inte alls av samma åsikt			Neutral			Helt av samma åsikt	Vet inte
Jag har personligen mött de flesta av mina närmaste utländska kolleger.	( )	( )	( )	( )	( )	( )	( )	( )
Jag har nära arbetsförhållande till mina utländska kolleger.	( )	( )	( )	( )	( )	( )	( )	( )
Jag gör mitt bästa med att hjälpa till med att lösa arbetsproblemen mina utländska kolleger har.	( )	( )	( )	( )	( )	( )	( )	( )
Jag tror att mina utländska kolleger gör sitt bästa med att hjälpa mig med mina arbetsproblem.	( )	( )	( )	( )	( )	( )	( )	( )
Jag litar på att mina utländska kolleger alltid håller vad de lovar.	( )	( )	( )	( )	( )	( )	( )	( )
Om jag får reda på ny information i mitt jobb,	( )	( )	( )	( )	( )	( )	( )	( )

informerar jag mina utländska kolleger.								
Jag frågar hellre om hjälp av mina utländska kolleger än genom att söka på Intranet.	( )	( )	( )	( )	( )	( )	( )	( )
Jag tror att andra kontor har lika viktig information som vårt eget kontor.	( )	( )	( )	( )	( )	( )	( )	( )

Är du av samma åsikt med följande påståenden?

	Inte alls av samma åsikt			Neutral			Helt av samma åsikt	Vet inte
Jag förstår vilka saker man måste göra på ett annat sätt i andra länder till exempel p.g.a. olika lagstiftelse.	( )	( )	( )	( )	( )	( )	( )	( )
Jag förstår mina utländska kollegers dagliga arbetsrutiner.	( )	( )	( )	( )	( )	( )	( )	( )
Jag tillämpar informationen jag får av								

mina utländska kolleger i mitt dagliga arbete.								
Kollegerna på andra kontor tillämpar ofta informationen jag ger dem.	( )	( )	( )	( )	( )	( )	( )	( )
Jag har svårt att överföra min yrkeskunskap till kolleger på andra kontor, för det skulle kräva personlig kontakt.	( )	( )	( )	( )	( )	( )	( )	( )
Den mesta kunskapen och erfarenheten jag fått i mitt jobb finns enbart i mitt huvud och är inte dokumenterat.	( )	( )	( )	( )	( )	( )	( )	( )

Är du av samma åsikt med följande påståenden?

	Inte alls av samma åsikt			Neutral			Helt av samma åsikt	Vet inte
Jag får mycket onödig information från olika håll.	( )	( )	( )	( )	( )	( )	( )	( )
För mycket av min arbetstid går till att höra/läsa onödig information.	( )	( )	( )	( )	( )	( )	( )	( )
Det är slöseri av min egen arbetstid att hjälpa mina utländska kolleger med deras arbetsproblem.	( )	( )	( )	( )	( )	( )	( )	( )
Jag får tillräcklig information gällande arbetssaker.	( )	( )	( )	( )	( )	( )	( )	( )
Mina kolleger på egen avdelning får mera angelägen information än jag.	( )	( )	( )	( )	( )	( )	( )	( )
Jag förstår yrkesspråket mina								

utländska kolleger använder i dagligt bruk.								
Jag har haft missförstånd med mina utländska kolleger p.g.a språkbarriär.	( )	( )	( )	( )	( )	( )	( )	( )
Jag får inte all den info som mina kolleger, då min språkkunskap inte är tillräcklig.	( )	( )	( )	( )	( )	( )	( )	( )
Jag får ny information regelbundet från andra kontor.	( )	( )	( )	( )	( )	( )	( )	( )
Jag vet vem jag skall kontakta på andra kontor när jag behöver hjälp eller råd.	( )	( )	( )	( )	( )	( )	( )	( )

Är du av samma åsikt med följande påståenden?

	Inte alls av samma åsikt			Neutral			Helt av samma åsikt	Vet inte
Jag har diskuterat kunskapsmässig informationsbyte och rutiner kring detta med min chef.	( )	( )	( )	( )	( )	( )	( )	( )
Det är en del av mitt jobb att aktivt utbyta arbetsinformation med både utländska och inhemska kolleger.	( )	( )	( )	( )	( )	( )	( )	( )
Vår organisation är mycket bra på att utbyta information mellan utländska kontor.	( )	( )	( )	( )	( )	( )	( )	( )
Jag känner att jag är anställd på Janssen-Cilag Nordic, och inte bara på mitt eget kontor.	( )	( )	( )	( )	( )	( )	( )	( )

När jag är i kontakt med kolleger i utländska kontor, är det oftast

( ) Jag har kontaktat kollegan.
( ) Kollegan har kontaktat mig.

Varför, tror du, att dina utländska kolleger frågar om hjälp av dig? Välj viktigaste skäl av följande alternativ.

( ) Jag är ansvarig för det området.
( ) Jag är den som kan bäst lösa problemet.
( ) Kollegan känner mig bättre än de andra.
( ) Mina språkkunskaper är bättre än andras.

På vilket språk kommunicerar du oftast med dina utländska kolleger?

( ) Vårt gemensamma modersmål
( ) Mitt modersmål
( ) Hans/hennes modersmål
( ) Engelska

För informationsbyte, hur viktigt anser du att följande alternativ är?

	Väldigt viktig	Viktig	Inte så viktig
Intranet	( )	( )	( )
E-mail	( )	( )	( )
Telefon	( )	( )	( )
Prat i korridoren	( )	( )	( )
Möten	( )	( )	( )

Vilken av dessa är den viktigaste informationskällan för dig?

( ) Intranet
( ) E-mail
( ) Telefon
( ) Prat i korridoren

( ) Möten

Är informationsbytet organiserat bra mellan olika kontor på Janssen-Cilag? Kunde man göra några förbättningar till det?

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